

## SEQUENCE LISTING

<110> Wang, Tongtong  
 Marnerakis, Margarita  
 Fanger, Gary R.  
 Vedvick, Thomas S.  
 Carter, Darrick  
 Watanabe, Yoshihiro  
 Henderson, Robert A.  
 Peckham, David W.  
 Fanger, Neil

<120> COMPOSITIONS AND METHODS FOR THE THERAPY  
 AND DIAGNOSIS OF LUNG CANCER

<130> 210121.455C16

<140> US

<141> 2001-06-28

<160> 467

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 315

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 236, 241

<223> n = A,T,C or G

<400> 1

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cagctgccgt gagactcccg atgtcacagg cagtctgtgt ggttacagcg cccctcagtg 120
ttcatctcca gcagagacaa cggaggaggc tcccaccagg acggttctca ttatttatat 180
gttaatatgt ttgtaaactc atgtacagtt ttttttgggg gggaagcaat gggaanggta 240
naaattacaa atagaatcat ttgctgtaat ccttaaattg caaacggtca ggccacgtga 300
aaaaaaaaaa aaaaaa                                     315
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<210> 2

<211> 380

<212> DNA

<213> Homo sapiens

<400> 2

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atttaggctt aagattttgt ttacccttgt tactaaggag caaattagta ttaaagtata 60
atatatataa acaaatacaa aaagttttga gtgggttcagc ttttttattt tttttaatgg 120
```

```
cataactttt aacaacactg ctctgtaatg ggttgaactg tggactcag actgagataa 180
ctgaaatgag tggatgtata gtgttattgc ataattatcc cactatgaag caaagggact 240
ggataaattc ccagtctaga ttattagcct ttgttaacca tcaagcacct agaagaagaa 300
ttattggaaa ttttgcctc tgtaactggc actttggggg gtgacttatc ttttgccttt 360
gtaaaaaaaa aaaaaaaaaa 380
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<210> 3
<211> 346
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 316, 317, 318, 322, 323, 326, 329, 330, 331, 336, 337, 339,
340, 342, 343
<223> n = A,T,C or G
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<400> 3
ttgtaagtat acaatthttag aaaggattaa atgttattga tcattttact gaatactgca 60
catcctcacc atacaccatc cactttccaa taacatttaa tcctttctaa aattgtaagt 120
atacaattgt actttctttg gattttcata acaaatatac catagactgt taattttatt 180
gaagtttctt taatggaatg agtcattttt gtcttggtgt tttgagggtta cctttgcttt 240
gacttccaac aatttgatca tatagtgttg agctgtggaa atctttaagt ttattctata 300
gcaataatth ctattnnnag annccngggn naaaannann annaaa 346
```

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<210> 4
<211> 372
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 297, 306, 332
<223> n = A,T,C or G
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<400> 4
actagtctca ttactccaga attatgctct tgtacctgtg tggctggggt tcttagtcgt 60
tggtttggtt tggttttttg aactgggtat taggggtggt cacagttcta atgtaagcac 120
tctcttctcc aagtttgtgt ttgtggggac aatcattctt tgaacattag agaggaaggc 180
agttcaagct gttgaaaaga ctattgctta tttttgtttt taaagacctt cttgacgtca 240
tgtggacagt gcacgtgcct tacgtacat cttgttttct aggaagaagg ggatgcnggg 300
aaggantggg tgctttgtga tggataaaaac gntaaataa cacaccttta cattttgaaa 360
aaaacaaaac aa 372
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<210> 5
<211> 698
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 8, 345, 422, 430, 433, 436, 438, 472, 481, 486, 515, 521,
536, 549, 553, 556, 557, 559, 568, 593, 597, 605, 611, 613,
616, 618, 620, 628, 630, 632, 634, 635, 639, 643, 647, 648,
```

649, 652, 654, 658, 664, 690  
 <223> n = A,T,C or G

<400> 5  
 actagtanga tagaaacact gtgtcccgag agtaaggaga gaagctacta ttgattagag 60  
 cctaaccag gttaactgca agaagaggcg ggatactttc agctttccat gtaactgtat 120  
 gcataaagcc aatgtagtcc agtttctaag atcatgttcc aagctaactg aatcccactt 180  
 caatacacac tcatgaactc ctgatggaac aataacaggc ccaagcctgt ggtatgatgt 240  
 gcacacttgc tagactcaga aaaaatacta ctctcataaa tgggtgggag tattttgggt 300  
 gacaacctac tttgcttggc tgagtgaagg aatgatattc atatnttcat ttattccatg 360  
 gacatttagt tagtgctttt tatataccag gcatgatgct gagtgcactc cttgtgtata 420  
 tntccaaatn ttngtncngt cgctgcacat atctgaaatc ctatattaag antttcccaa 480  
 natgangtcc ctgggtttttc cacgccactt gatcngtcaa ngatctcacc tctgtntgtc 540  
 ctaaaaccnt ctntctnnang gttagacnng acctctcttc tcccttcccg aanaatnaag 600  
 tgtgngaaga nancnncnnc ccccccctnc tncnnectng ccngctnnnc cncntgtngg 660  
 gggngccgcc cccgcggggg gacccccccn ttttcccc 698

<210> 6  
 <211> 740  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 82, 406, 426, 434, 462, 536, 551, 558, 563, 567, 582, 584,  
 592, 638, 651, 660, 664, 673, 675, 697, 706, 711, 715, 716,  
 717, 723, 724, 725, 733  
 <223> n = A,T,C or G

<400> 6  
 actagtcaaa aatgctaaaa taatttggga gaaaatattt ttttaagtagt gttatagttt 60  
 catgtttatc ttttattatg tnttgtgaag ttgtgtcttt tcactaatta cctatactat 120  
 gccaatatct ccttatatct atccataaca tttatactac atttgtaaga gaatatgcac 180  
 gtgaaactta acactttata aggtaaaaat gaggtttcca agatttaata atctgatcaa 240  
 gttcttggtt tttccaaata gaatggactt ggtctgttaa ggggctaagg gagaagaaga 300  
 agataagggt aaaagtgtgt aatgaccaa catttcaaaa gaaatgcaaa aaaaaattta 360  
 ttttcaagcc ttccaactat ttaaggaaag caaaatcatt tcctanatgc atatcatttg 420  
 tgagantttc tcantaatat cctgaatcat tcatttcagc tnaggcttca tgttgactcg 480  
 atatgtcatc tagggaaagt ctatttcatg gtccaaacct gttgccatag ttggtnaggc 540  
 tttcctttta ntgtgaanta ttnacangaa attttctct tnanagttct tnatagggtt 600  
 aggggtgtgg gaaaagcttc taacaatctg tagtgtnncg tgttatctgt ncagaaccan 660  
 aatnacggat cgnangaagg actgggtota tttacangaa cgaatnatct ngttnnntgt 720  
 gttnncaact ccngggagcc 740

<210> 7  
 <211> 670  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 265, 268, 457, 470, 485, 546, 553, 566, 590, 596, 613, 624,  
 639, 653, 659, 661  
 <223> n = A,T,C or G

<400> 7

```
gctgggggagc tcggcatggc ggtccccgct gcagccatgg ggccctcggc gttggggccag 60
agcgggccccg gctcgatggc cccgtggtgc tcagttagca gcggcccgtc gcgctacgtg 120
cttgggatgc aggagctgtt ccgggggccac agcaagaccg cgagtctctg gcgcacagcg 180
ccaaggtgca ctcggtggcc tggagttgcg acgggcgtcg cctacctcgg ggtcttcgac 240
aagacgccac gtcttcttgc tgganaanga ccgttggtca aagaaaacaa ttatcgggga 300
catggggata gtgtggacca ctttgttggc atccaagtaa tcctgacctt tttgttacgg 360
cgtctggaga taaaaccatt cgcctctggg atgtgaggac tacaaaatgc attgccactg 420
tgaacactaa aggggagAAC attaatatct gctggantcc tgatgggcan accattgctg 480
tagcnacaag gatgatgtgg tgactttatt gatgccaaga aaccccgttc caaagcaaaa 540
aaacanttcc aanttcgaag tcaccnaaat ctctggaac aatgaacatn aatatnttct 600
tctgacaat ggnccctggg tgnntcacat cctcagctnc cccaaaactg aancctgtnc 660
natccacccc
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<210> 8

<211> 689

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 253, 335, 410, 428, 448, 458, 466, 479, 480, 482, 483, 485,  
488, 491, 492, 495, 499, 500, 502, 503, 512, 516, 524, 525,  
526, 527, 530, 540, 546, 550, 581, 593, 594, 601, 606, 609,  
610, 620, 621, 622, 628, 641, 646, 656, 673

<223> n = A,T,C or G

<400> 8

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actagtatct aggaatgaac agtaaaagag gagcagttgg ctacttgatt acaacagagt 60
aatgaagta ctggatttgg gaaaacctgg ttttattaga acatatggaa tgaaagccta 120
cacotagcat tgccacttta gccccctgaa ttaacagagc ccaattgaga caaacccttg 180
gcaacaggaa attcaaggga gaaaaagtaa gcaacttggg ctaggatgag ctgactccct 240
tagagcaaag ganagacagc ccccattacc aaataccatt tttgctggg gcttgtgcag 300
ctggcagtggt tcctgcccc gcatggcacc ttatngtttt gatagcaact tcgttgaatt 360
ttcaccaact tattacttga aattataata tagcctgtcc gtttgctgtg tccaggctgt 420
gatatatntt cctagtgggt tgacttttaa aataaatnag gtttantttt ctcccccnnn 480
cnntnctncc nntnctenn cnntcccccc cnetcngtec tccnnnnntn gggggggcnn 540
ccccnccggn ggacccccct ttgggtccctt agtggagggt natggcccct ggnnttatcc 600
nggccntann ttcccccgtn nnaaatgntt cccctccca ntccnccac ctcaanccgg 660
aagcctaagt ttntacctg ggggtcccc 689
```

<210> 9

<211> 674

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 602, 632, 639, 668

<223> n = A,T,C or G

<400> 9

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```



```
<210> 10
<211> 346
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 320, 321, 322, 325, 326, 328, 329, 330, 332, 333, 334, 335,
342
<223> n = A,T,C or G
```

```
<400> 10
actagtctgc  tgatagaaag  cactatacat  cctattgttt  ctttctttcc  aaaatcagcc  60
ttctgtctgt  aacaaaaaatg  tactttatag  agatggagga  aaagggtctaa  tactacatag  120
ccttaagtgt  ttctgtcatt  gttcaagtgt  attttctgta  acagaaacat  atttggaatg  180
tttttctttt  ccccttataa  attgtaattc  ctgaaatact  gctgctttta  aaagtcccac  240
tgtcagatta  tattatctaa  caattgaata  ttgtaaatat  acttgtctta  cctctcaata  300
aaagggtact  tttctattan  nnagnngnnn  qnnnnataaa  anaaaa      346
```

```
<210> 11
<211> 602
<212> DNA
<213> Homo sapiens
```

<400> 11							
actagtaaaa	agcagcattg	ccaaataatc	cctaatttttc	cactaaaaaat	ataatgaaat		60
gatgttaagc	tttttgaaaa	gttttaggtta	aacctactgt	tgtagatta	atgtatttgt		120
tgcttccctt	tatctggaat	gtggcattag	cttttttatt	ttaacctct	ttaattctta		180
ttcaattcca	tgacttaagg	ttggagagct	aaacactggg	atttttgga	aacagactga		240
cagttttgca	taattataat	cggcattgta	catagaaagg	atatggctac	cttttgtaa		300
atctgcactt	tctaaatata	aaaaaaggga	aatgaagtta	taaatacaat	tttgtataat		360
ctgtttgaaa	catgagtttt	atttgcttaa	tattagggct	ttgcccttt	tctgtaagtc		420
tcttgggatc	ctgtgtagaa	ctgttctcat	taaacaccaa	acagttaagt	ccattctctg		480
gtactagcta	caaattcggg	tccatattct	acttaacaat	ttaaataaac	tgaaatattt		540
ctagatggtc	tacttctggt	catataaaaa	caaaacttga	tttccaaaaa	aaaaaaaaaa		600
aa							602

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<210> 12
<211> 685
<212> DNA
<213> Homo sapiens
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<220>

<221> misc\_feature

<222> 170, 279, 318, 321, 322, 422, 450, 453, 459, 467, 468, 470,  
473, 475, 482, 485, 486, 491, 498, 503, 506, 509, 522, 526,  
527, 528, 538, 542, 544, 551, 567, 568, 569, 574, 576, 582,  
587, 588, 589, 590, 592, 593, 598, 599, 603, 605, 608

<223> n = A,T,C or G

<221> misc\_feature

<222> 633, 634, 635, 644, 646, 648, 651, 655, 660, 662, 663, 672,  
674, 675, 682, 683

<223> n = A,T,C or G

<400> 12

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actagtctctg tgaaagtaca actgaaggca gaaagtgtta ggatttttgc tctaattgttc 60
attatcatgg tattgatgga cctaagaaaa taaaaattag actaagcccc caaataagct 120
gcatgcattt gtaacatgat tagtagattt gaatatatag atgtagtatn ttgggtatct 180
aggtgtttta tcattatgta aaggaattaa agtaaaggac tttgtagtgtg tttttattaa 240
atatgcataat agtagagtgc aaaaatatag caaaaatana aactaaagggt agaaaagcat 300
tttagatatg ccttaatnta nnaactgtgc caggtggccc tcggaataga tgccaggcag 360
agaccagtgc ctgggtgggtg cctccccttg tctgcccccc tgaagaactt ccctcacgtg 420
angtagtgcc ctcgtaggtg tcacgtggan tantggganc aggccgnncn gtnanaagaa 480
ancanngtga nagtttccnc gtngangcng aactgtccct gngccnnnac gctcccanaa 540
cntntccaat ngacaatcga gtttccnnnc tccngnaacc tngccgnnnn cnngccnnnc 600
cantntgnta accccgcgcc cggatcgctc tennntcgtt ctncncnaa ngggntttcn 660
cnnccgcctg cncnnccccg cnncc 685
```

<210> 13

<211> 694

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 503, 546, 599, 611, 636, 641, 643, 645, 656, 658, 662, 676,  
679, 687

<223> n = A,T,C or G

<400> 13

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cactagtcac tcattagcgt ttccaatagg gctcttaagt ccagtagatt acgggtagtc 60
agttgacgaa gatctgggtt acaagaacta attaaatgtt tcattgcatt tttgtaagaa 120
cagaataatt ttataaaatg tttgtagttt ataattgccg aaaataattt aaagacactt 180
tttctctgtg tgtgcaaagt tgtgtttgtg atccattttt tttttttttt taggacacct 240
gtttactagc tagctttaca atatgcaaaa aaaggatttc tccctgacct catccgtggt 300
tcaccctctt ttccccccat gcttttttgc ctagtgttata acaaaggaat gatgatgatt 360
taaaaagttag ttctgtatct tcagtatctt ggtcttccag aacctcttgg ttgggaaggg 420
gatcattttt tactgggcoat ttcccttttg agtgacttac tttaacagat ggaaagaact 480
cattggccat ggaaacagcc gangtggttg gagccagcag tgcattggcac cgtccggcat 540
ctggcntgat tggctctggct gccgtcattg tcagcacagt gccatgggac atggggaana 600
ctgactgcac ngccaatggt tttcatgaag aatacngcat ncnngtgtat cacgtnancc 660
angacgctat gggggncana gggccanttg ctcc 694
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<210> 14

<211> 679

<212> DNA  
<213> Homo sapiens

<220>

<221> misc\_feature

<222> 29, 68, 83, 87, 94, 104, 117, 142, 145, 151, 187, 201, 211,  
226, 229, 239, 241, 245, 252, 255, 259, 303, 309, 359, 387,  
400, 441, 446, 461, 492, 504, 505, 512, 525, 527, 533, 574,  
592, 609, 610, 618, 620, 626, 627, 633, 639, 645, 654

<223> n = A,T,C or G

<400> 14

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cagcgcctg catctgtatc cagcgccang tcccgccagt cccagctgcg cgcgcccccc 60
agtcccgna cggttcggcc cangctnagt tagncctcac catnccggtc aaaggangca 120
ccaagtgcac caaataacct cngtncggat ntaaattcat cttctggctt gccgggattg 180
ctgtccntgc cattggacta nggctccgat ncgactctca gaccanganc atcttcganc 240
naganactaa tnatnatntt tccagcttct acacaggagt ctatattctg atcggatccg 300
gcncctctnt gatgctgggt ggcttcctga gctgctgcgg ggctgtgcaa gagtcccant 360
gcatgctggg actgttcttc ggcttctctt tggtgatatn cgccattgaa atacctgcgg 420
ccatctgggg atattccact ncgatnatgt gattaaggaa ntccacggag ttttacaagg 480
acacgtacaa cnacctgaaa accnnggatg anccccaccg ggaancnctg aangccatcc 540
actatgcgtt gaactgcaat ggtttggctg gggnccttga acaatttaat cncatacatc 600
tggccccann aaaggacntn ctcgannoct tcnccgtgna attcngttct gatnccatca 660
cagaagtctc gaacaatcc                                     679
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<210> 15

<211> 695

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 105, 172, 176, 179, 189, 203, 212, 219, 221, 229, 231, 238,  
242, 261, 266, 270, 278, 285, 286, 298, 311, 324, 337, 350,  
363, 384, 391, 395, 405, 411, 424, 427, 443, 448, 453, 455,  
458, 463, 467, 470, 479, 482, 484, 493, 499, 505, 518

<223> n = A,T,C or G

<221> misc\_feature

<222> 520, 523, 531, 540, 584, 595, 597, 609, 611, 626, 628, 651,  
652, 657, 661, 665, 669, 672, 681, 683, 691, 693

<223> n = A,T,C or G

<400> 15

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actagtggat aaaggccagg gatgctgctc aacctcctac catgtacagg gacgtctccc 60
cattacaact acccaatccg aagtgtcaac tgtgtcagga ctaanaaacc ctgggttttga 120
ttaaaaaagg gcctgaaaaa aggggagcca caaatctgtc tgcttcctca cnttantcnt 180
tggcaaatna gcattctgtc tcnttggctg cngcctcanc ncaaaaaanc ngaactcnat 240
cngggccagg aatacatctc ncaatnaacn aaattganca aggonntggg aaatgcnga 300
tgggattatc ntccgcttgt tgancttcta agtttcttct ccttcattcn accctgccag 360
ccnagttctg ttagaaaaat gccngaattc naacnccggg tttctactc ngaattttaga 420
tctncanaaa ctctctggcc acnattcnaa ttnanggnca cgnacanatn ccttccatna 480
ancncacccc acntttgana gccangacaa tgactgcntn aantgaaggc ntgaaggaa 540
aactttgaaa ggaaaaaaa ctttgtttcc ggcccccttc aacncttctg tgttnancac 600
```

```

tgccttctng naaccctgga agcccnngga cagtgttaca tgttggttcta nnaaacngac 660
ncttnaatnt cnatcttccc nanaacgatt ncnc 695

```

```

<210> 16
<211> 669
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 299, 354, 483, 555, 571, 573, 577, 642, 651, 662, 667
<223> n = A,T,C or G

```

```

<400> 16
cgccgaagca gcagcgcagg ttgtccccgt tccccctccc ccttcccttc tccggttgcc 60
ttcccgggcc ccttacactc cacagtcccc gtcccgccat gtcccagaaa caagaagaag 120
agaaccctgc ggaggagacc ggcgaggaga agcaggacac gcaggagaaa gaaggtattc 180
tgctgagag agctgaagag gcaaagctaa aggccaaata cccaagccta ggacaaaagc 240
ctggaggctc cgacttcctc atgaagagac tccagaaagg gcaaaagtac tttgactcng 300
gagactacaa catggccaaa gccaacatga agaataagca gctgccaaagt gcangaccag 360
acaagaacct ggtgactggt gatcacatcc ccaccccaca ggatctgccc agagaaaagtc 420
ctcgtctcgtc accagcaagc ttgcgggtgg ccaagttgaa tgatgctgcc ggggctctgc 480
canatctgag acgcttcctc cctgccccca cccgggtcct gtgctggctc ctgcccttcc 540
tgctttttgca gccangggtc aggaagtggc ncnggtngtg gctggaaagc aaaacccttt 600
cctgttggtg tcccacccat ggagccccctg ggcgcagccc angaacttga ncctttttgt 660
tntcttnc 669

```

```

<210> 17
<211> 697
<212> DNA
<213> Homo sapiens

```

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<220>
<221> misc_feature
<222> 33, 48, 50, 55, 59, 60, 76, 77, 78, 90, 113, 118, 130, 135,
141, 143, 150, 156, 166, 167, 170, 172, 180, 181, 190, 192,
194, 199, 201, 209, 212, 224, 225, 226, 230, 233, 234, 236,
242, 244, 251, 253, 256, 268, 297, 305, 308, 311, 314
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 315, 317, 322, 324, 327, 333, 337, 343, 362, 364, 367, 368,
373, 384, 388, 394, 406, 411, 413, 423, 429, 438, 449, 450,
473, 476, 479, 489, 491, 494, 499, 505, 507, 508, 522, 523,
527, 530, 533, 535, 538, 539, 545, 548, 550, 552, 555
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 562, 563, 566, 568, 572, 577, 578, 580, 581, 591, 594, 622,
628, 632, 638, 642, 644, 653, 658, 662, 663, 665, 669, 675,
680, 686, 689
<223> n = A,T,C or G

```

```

<400> 17

```

```

gcaagatatg gacaactaag tgagaaggta atnctctact gctctagntn ctcnnggcnn 60
gacgcgctga ggagannnac gctggcccan ctgccggcca cacacgggga tcntggtnat 120
gcctgcccan gggancccca ncnctcggan cccatntcac acccgnnccn tncgcccacn 180
ncttgctcn cnngcccng nccagctcnc gnccccctcc gccnnnctcn ttnnctctc 240
cncnccctcc ncnacnacct cctacccncg gctccctccc cagccccccc ccgcaancct 300
ccacnacncc ntenncnega ancnccnctc gcnctcngec cngccccct gcccccgcgc 360
cncnacnncg cgncccccg cgcncgcngc ctncccccct cccacnacag ncnacccgc 420
agncagcnc tccgcccnet gacgeccenn cccgcgcgc tcacctcat ggnccnacng 480
ccccgctcnc ncnctgcnc gcgcncnng gcggcgccc cncnccngtn ccncncgng 540
ccccngcngn angengtgcg cncnangncc gngccgncn ncacctccg ncnccgccc 600
cgcccgctgg gggtcccg cncgcggntc antcccncc cntncgcca ctntccgntc 660
cnnnctcnc gctcngcgc cgcncncnc ccccccc 697

```

<210> 18

<211> 670

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 234, 292, 329, 437, 458, 478, 487, 524, 542, 549, 550, 557,  
576, 597, 603, 604, 646, 665

<223> n = A,T,C or G

<400> 18

```

ctcgtgtgaa ggggtgcagta cctaagccgg agcggggtag aggcggggccg gcacccccctt 60
ctgacctcca gtgccgcggg cctcaagatc agacatggcc cagaacttga acgacttggc 120
gggacggctg cccgcggggc cccggggcat gggcacggcc ctgaagctgt tgctgggggc 180
cggcgccgtg gcctacggtg tgcggaatc tgtgttcacc gtggaaggcg ggcncagagc 240
catctttctc aatcggtatc gtggagtga caggacacta tccggggccg anggccttca 300
cttcaggatc cttggttcca gtacccanc atctatgaca ttccgggccg acctcgaaaa 360
aatctcctcc ctacaggctc caaagaccta cagatgggtga atatctccct gcgagtgttg 420
tctcgaccaa tgctcangaa cttcctaaca tgttccancg cctaagggtt ggactacnaa 480
gaacgantgt tgccgtccat tgtcacgaag tgtcaagaa tttnggtggc caagttcaat 540
gncctcacnn ctgatchccc agcggggcca agttanccct gggtgatccc cgggganctg 600
acnnaaaagg gccaaaggact tccccctatc ctggataatg tggccntcac aaagctcaac 660
tttanccacc 670

```

<210> 19

<211> 606

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 506

<223> n = A,T,C or G

<400> 19

```

actagtgcc accacagctc ccaggccagt tctctgaatg tcgaggagt ccaggatctc 60
tgccctcagt tgctcttggg tattgatggg ggacaaattg gggatggcca gagccccgag 120
tgctgccttg gctcaactgt ggttgatttg tctgtgccc gaaagtgttg catcattcgt 180
ccaggctgtg ccttgaaaag tactacagcc atcctccaac agaagtacgg actgctcccc 240
tcacatgcgt cctacctgtg aaactctggg aagcaggaag gcccaagacc tgggtgctgga 300

```

```
tactatgtgt ctgtccactg acgactgtca aggcctcatt tgcagaggcc accggagcta 360
gggcactagc ctgactttta aggcagtgtg tctttctgag cactgtagac caagcccttg 420
gagctgctgg tttagccttg cacctgggga aaggatgtat ttatttgtat tttcatatat 480
cagccaaaag ctgaatggaa aagttnagaa cattcctagg tggccttatt ctaataagtt 540
tcttctgtct gttttgtttt tcaattgaaa agttattaaa taacagattt agaatctagt 600
gagacc 606
```

```
<210> 20
<211> 449
<212> DNA
<213> Homo sapiens
```

```
<400> 20
actagtaaac aacagcagca gaaacatcag tatcagcagc gtcgccagca ggagaatatg 60
cagcgccaga gccgaggaga acccccgcct cctgaggagg acctgtccaa actcttcaaa 120
ccaccacagc cgctgcccag gatggactcg ctgctcattg caggccagat aaacacttac 180
tgccagaaca tcaaggagtt cactgcccaa aacttaggca agctcttcac ggcccaggct 240
cttcaagaat acaacaacta agaaaaggaa gtttccagaa aagaagttaa catgaactct 300
tgaagtcaca ccagggcaac tcttggaaga aatatatttg catattgaaa agcacagagg 360
atttcttttag tgtcattgcc gattttggct ataacagtgt ctttctagcc ataataaaat 420
aaaacaaaat cttgactgct tgctcaaaa 449
```

```
<210> 21
<211> 409
<212> DNA
<213> Homo sapiens
```

```
<400> 21
tatcaatcaa ctggtgaata attaaacaat gtgtggtgtg atcatacaaa ggggtaccact 60
caatgataaa aggaacaagc tgcctatatg tggaacaaca tggatgcatt tcagaaactt 120
tatgttgagt gaaagaacaa acacggagaa cactactatgt ggttctcttt atgtaacatt 180
acagaaataa aaacagaggc aaccaccttt gaggcagtat ggagtgcatt agactggaaa 240
aaggaaggaa ggaaactcta cgctgatgga aatgtctgtg tcttcattgg gtggtagtta 300
tgtggggata tacatttgtc aaaatttatt gaactatata ctaaagaact ctgcatttta 360
ttgggatgta aataatacct caattaaaaa gacaaaaaaa aaaaaaaaaa 409
```

```
<210> 22
<211> 649
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 263, 353, 610, 635, 646
<223> n = A,T,C or G
```

```
<400> 22
acaattttca ttatcttaag cacattgtac atttctacag aacctgtgat tattctcgca 60
tgataaggat ggtacttgca tatggtgaat tactactgtt gacagtttcc gcagaaatcc 120
tatttcagtg gaccaacatt gtggcatggc agcaaatgcc aacattttgt ggaatagcag 180
caaatctaca agagaccctg gttgggtttt cgttttgttt tctttgtttt ttcccccttc 240
tcctgaatca gcagggatgg aangagggtg gggaagttaa gaattactcc ttccagtagt 300
agctctgaag tgtcacattt aatatcagtt ttttttaaac atgattctag ttnaatgtag 360
aagagagaag aaagaggaag tgttcacttt tttaatacac tgatttagaa atttgatgtc 420
```

```

ttatatcagt agttctgagg tattgatagc ttgctttatt tctgccttta cgttgacagt 480
gttgaagcag ggtgaataac taggggcata tatatTTTTT ttttttgtaa gctgtttcat 540
gatgttttct ttggaatttc cggataagtt caggaaaaca tctgcatgtt gttatctagt 600
ctgaagttn tatccatctc attacaacaa aaacnccag aacggnttg 649

```

```

<210> 23
<211> 669
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 642, 661
<223> n = A,T,C or G

```

```

<400> 23
actagtgcg tactggctga aatccctgca ggaccaggaa gagaaccagt tcagactttg 60
tactctcagt caccagctct ggaattagat aaattccttg aagatgtcag gaatgggagc 120
tactctctga cagcctttgg gctgcctcgg cccagcagc cacagcagga ggaggtgaca 180
tcacctgtcg tgccccctc tgtcaagact ccgacacctg aaccagctga ggtggagact 240
cgcaaggtgg tgctgatgca gtgcaacatt gagtcgggtg aggagggagt caaacaccac 300
ctgacacttc tgctgaagtt ggaggacaaa ctgaaccggc acctgagctg tgacctgatg 360
ccaaatgaga atatccccga gttggcggct gagctgggtg agctgggctt cattagttag 420
gctgaccaga gccgggttgac ttctctgcta gaagagactt gaacaagtgc aattttgcc 480
ggaacagtac cctcaactca gccgtgtgca cgtctcctc ttagagctca ctggggccag 540
gccctgatct gcgtgtggc tgtctggac gtgctgcacc ctctgtcctt cccccagtc 600
agtattacct gtgaagccct tccctccttt attattcagg anggctgggg gggctccttg 660
nttctaacc 669

```

```

<210> 24
<211> 442
<212> DNA
<213> Homo sapiens

```

```

<400> 24
actagtacca tcttgacaga ggatacatgc tcccaaaacg tttgttacca cacttaaaaa 60
tactgccat cattaagcat cagtttcaaa attatagcca ttcattgattt actttttcca 120
gatgactatc attattctag tcctttgaat ttgtaagggg aaaaaaaca aaaacaaaaa 180
cttacgatgc acttttctcc agcacatcag atttcaaatt gaaaattaaa gacatgctat 240
ggtaatgcac ttgctagtac tacacacttt ggtacaacaa aaaacagagg caagaaacaa 300
cggaaagaga aaagccttcc tttgttggcc cttaaactga gtcaagatct gaaatgtaga 360
gatgatctct gacgatacct gtatgttctt attgtgtaaa taaaattgct ggtatgaaat 420
gacctaaaaa aaaaaaaga aa 442

```

```

<210> 25
<211> 656
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 330, 342, 418, 548, 579, 608
<223> n = A,T,C or G

```

&lt;400&gt; 25

```

tgcaagtacc acacactgtt tgaattttgc aaaaaaagtg actgtaggat caggtgatag 60
ccccggaatg tacagtgtct tgggtgcacca agatgccttc taaaggctga cataccttgg 120
accctaattg ggcagagagt atagccctag cccagtgggtg acatgaccac tccctttggg 180
aggcctgagg tagaggggag tggatatgtg tttctcagtg gaagcagcac atgagtgggt 240
gacaggatgt tagataaagg ctctagtttag ggtgtcattg tcatttgaga gactgacaca 300
ctcctagcag ctggtaaagg ggtgctggan gccatggagg anctctagaa acattagcat 360
gggctgatct gattacttcc tggcatcccg ctcactttta tgggaagtct tattagangg 420
atgggacagt tttccatatt cttgctgtgg agctctggaa cactctctaa atttccctct 480
attaaaaatc actgccttaa ctacacttcc tccttgaagg aatagaaatg gaactttctc 540
tgacatantt cttggcatgg ggagccagcc aaaaatgana atctgaacgt gtccaggttt 600
ctcctganac tcactacat agaattgggt aaacctccc ttggaataag gaaaaa 656

```

&lt;210&gt; 26

&lt;211&gt; 434

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 395

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 26

```

actagttcag actgccacgc caaccccgaga aaatacccca catgccagaa aagtgaagtc 60
ctaggtgttt ccatctatgt ttcaatctgt ccatctacca ggccctcgca taaaaacaaa 120
acaaaaaaaa gctgccaggt tttagaagca gttctggtct caaaaccatc aggatcctgc 180
caccagggtt cttttgaaat agtaccacat gtaaaaggga atttggtttt cacttcatct 240
aataactgaa ttgtcaggct ttgattgata attgtagaaa taagtagcct tctgtttgtg 300
gaataagtta taatcagtat tcactctttt gttttttgtc actcttttct ctctaattgt 360
gtcatttgta ctgtttgaaa aatatttctt ctatnaaatt aaactaacct gccttaaaaa 420
aaaaaaaaaa aaaa 434

```

&lt;210&gt; 27

&lt;211&gt; 654

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 505, 533, 563, 592, 613, 635, 638

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 27

```

actagtccaa cacagtcaga aacattgttt tgaatcctct gtaaaccaag gcattaatct 60
taataaacca ggatccattt aggtaccact tgatataaaa aggatatcca taatgaatat 120
tttatactgc atcctttaca ttagccacta aatagttat tgcttgatga agacctttca 180
cagaatccta tggattgcag catttcactt ggctacttca taccatgcc ttaaagaggg 240
gcagttttct aaaaagcagaa acatgccgcc agttctcaag ttttcctcct aactccattt 300
gaatgtaagg gcagctggcc cccaatgtgg ggaggtccga acatttttctg aattccatt 360
ttcttgttcg cggctaaatg acagtttctg tcattactta gattccgata tttcccaaag 420
gtgttgattt acaaagaggc cagctaatag cagaaatcat gacctgaaa gagagatgaa 480
attcaagctg tgagccaggc agganctcag tatggcaaag gtcttgagaa tcngccattt 540
ggtacaaaaa aaatttttaa gcntttatgt tataccatgg aaccatagaa anggcaaggg 600

```



aattgttaag aanaatttta agtgtccaga cccanaanga aaaaaaaaaa aaaa 654

<210> 28

<211> 670

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 101, 226, 274, 330, 385, 392, 397, 402, 452, 473, 476, 532, 534, 538, 550, 583, 595, 604, 613, 622, 643, 669

<223> n = A,T,C or G

<400> 28

```
cgtgtgcaca tactgggagg atttcacag ctgcacggtc acagccctta eggattgcc 60
ggaaggggcg aaagatatgt gggataaact gagaaaagaa nccaaaaacc tcaacatcca 120
aggcagctta ttgaactct gcggcagcgg caacggggcg gcgggggtccc tgctcccggc 180
gttcccgggtg ctctgtgtgt ctctctcggc agcttttagcg acctgncctt ccttctgagc 240
gtggggccag ctccccccgc ggcccccacc cacnctcact ccattgctccc ggaaatcgag 300
aggaagatca ttagttcttt ggggacgttn gtgattctct gtgatgctga aaaacactca 360
tatagggaat gtgggaaatc ctganctctt tnttatntcg tntgatttct tgtgttttat 420
ttgccaaaat gttaccaatc agtgaccaac cnagcacagc caaaaatcgg acntcngctt 480
tagtccgtct tcacacacag aataagaaaa cggcaaaacc accccacttt tnantttnat 540
tattactaan ttttttctgt tgggcaaaag aatctcagga acngccctgg ggccnccgta 600
ctanagttaa ccnagctagt tncatgaaaa atgatgggct ccncctcaat gggaaagcca 660
agaaaaagnc 670
```

<210> 29

<211> 551

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 336, 474, 504, 511, 522, 523, 524, 540, 547

<223> n = A,T,C or G

<400> 29

```
actagtcttc cacagcctgt gaatccccct agacctttca agcatagtga gcggagaaga 60
agatctcagc gtttagccac cttacccatg cctgatgatt ctgtagaaaa ggtttcttct 120
ccctctccag ccaatgatgg gaaagtattc tccatcagtt ctcaaaatca gcaagaatct 180
tcagtaccag aggtgcctga tgttgacat ttgccacttg agaagctggg accctgtctc 240
cctcttgact taagtctgtg ttcagaagtt acagcaccgg tagcctcaga ttcctcttac 300
cgtaatgaat gtcccagggc agaaaaagag gatacncaga tgcttccaaa tccttcttcc 360
aaagcaatag ctgatgggaa gaggagctcc agcagcagca ggaatatcga aaacagaaaa 420
aaaagtgaag ttgggaagac aaaagctcaa cagcatttgg taaggagaaa aganaagatg 480
aggaaggaag agagaagaga gacnaagatc nctacggacc gnnncggaag aagaagaagn 540
aaaaanaaaa a 551
```

<210> 30

<211> 684

<212> DNA

<213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 545, 570, 606, 657, 684  
 <223> n = A,T,C or G

<400> 30  
 actagttcta tctggaaaaa gcccgggttg gaagaagctg tggagagtgc gtgtgcaatg 60  
 cgagactcat ttcttggaag catccctggc aaaaatgcag ctgagtacaa gggtatcact 120  
 gtgatagaac ctggactgct ttttgagata atagagatgc tgcagtctga agagacttcc 180  
 agcacctctc agttgaatga attaatgatg gcttctgagt caactttact ggctcaggaa 240  
 ccacgagaga tgactgcaga tgtaatcgag cttaaaggga aattcctcat caacttagaa 300  
 ggtggtgata ttctggaaga gtcttcctat aaagtaattg tcatgccgac tacgaaagaa 360  
 aaatgcccc gttgttgga gtatacagcg ggagtcttca gatacactgt gtcctcgatg 420  
 tgcagaagtt gtcagtggga aaatagtatt aacagctcac tcgagcaaga accctcctga 480  
 cagtactggg ctagaagttt ggatggatta tttacaatat aggaaagaaa gccagaatt 540  
 aggtnatgag tggatgagta aatggtggan gatggggaat tcaaatcaga attatggaag 600  
 aagttnttcc tgttactata gaaaggaatt atgtttatit acatgcagaa aatatanatg 660  
 tgtggtgtgt accgtggatg gaan 684

<210> 31  
 <211> 654  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 326, 582, 651  
 <223> n = A,T,C or G

<400> 31  
 ggcgagaaaa ggaaccaata tttcagaaac aagcttaata ggaacagctg cctgtacatc 60  
 aacatcttct cagaatgacc cagaagttat catcgtggga gctggcgtgc ttggctctgc 120  
 tttggcagct gtgctttcca gagatggaag aaaggtgaca gtcattgaga gagacttaaa 180  
 agagcctgac agaatagttg gagaattcct gcagccgggt ggttatcatg ttctcaaaga 240  
 ccttgggtctt ggagatacag tggaaggtct tgatgccag gttgtaaagt gttacatgat 300  
 tcatgatcag ggaaagcaaa tcagangttc agattcctta ccctctgtca gaaaacaatc 360  
 aagtgcagag tggaagagct ttccatcacg gaagattcat catgagtctc cggaaagcag 420  
 ctatggcaga gcccaatgca aagtttattg aaggtgttgt gttacagtta ttagaggaag 480  
 atgatgttgt gatgggagtt cagtacaagg ataaagagac tgggagatat caaggaactc 540  
 catgctccac tgactgttgt tgcagatggg cttttctcca anttcaggaa aagcctgggc 600  
 tcaataaagt ttctgtatca ctcatattggg tggcttctta tgaagaatgc nccc 654

<210> 32  
 <211> 673  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 376, 545, 627  
 <223> n = A,T,C or G

<400> 32  
 actagtgaag aaaaagaaat tctgatacgg gacaaaaatg ctcttcaaaa catcattctt 60

```
tatcacctga caccaggagt tttcattgga aaaggatttg aacctggtgt tactaacatt 120
ttaaagacca cacaaggaag caaaatcttt ctgaaagaag taaatgatac acttctggtg 180
aatgaattga aatcaaaaaga atctgacatc atgacaacaa atggtgtaat tcatgttgta 240
gataaaactcc tctatccagc agacacacct gttggaaatg atcaactgct ggaaataactt 300
aataaattaa tcaaatacat ccaaattaag tttgttcgtg gtagcacctt caaagaaatc 360
cccgtgactg tctatnagcc aattattaaa aaatacacca aaatcattga tgggagtgcc 420
tgtgggaaat aactgaaaaa gagaccgaga agaacgaatc attacaggtc ctgaaataaa 480
atacctagga tttctactgg aggtggagaa acagaagaac tctgaagaaa ttgttacaag 540
aagangtccc aaggtcacca aattcattga aggtggtgat ggtctttatt tgaagatgaa 600
gaaattaaaa gacgcttcag ggagacnccc catgaaggaa ttgccagcca caaaaaaatt 660
cagggattag aaa 673
```

<210> 33

<211> 673

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 325, 419, 452, 532, 538, 542, 571, 600, 616, 651, 653, 672

<223> n = A,T,C or G

<400> 33

```
actagttatt tactttcctc cgcttcagaa ggtttttcag actgagagcc taagcatact 60
ggatctgttg tttcttttgg gtctcacctc atcagtgtgc atagtggcag aaattataaa 120
gaagggtgaa aggagcaggg aaaagatcca gaagcatgtt agttcgacat catcatcttt 180
tcttgaagta tgatgcatat tgcattattt tatltgcaaa ctaggaattg cagtctgagg 240
atcattttaga agggcaagtt caagaggata tgaagatttg agaacttttt aactattcat 300
tgactaaaaa tgaacattaa tgttnaagac ttaagacttt aacctgctgg cagtcccaaa 360
tgaattatg caactttgat atcatattcc ttgatttaaa ttgggctttt gtgattgant 420
gaaactttat aaagcatatg gtcagtattt tnattaaaaa ggcaaaaacct gaaccacctt 480
ctgcacttaa agaagtctaa cagtacaaat acctatctat cttagatgga tntatttntt 540
tntattttta aatattgtac tatttatggg nggtggggct ttcttactaa tacacaaatn 600
aatttatcat ttcaanggca ttctatttgg gtttagaagt tgattccaag nantgcatat 660
ttcgctactg tnt 673
```

<210> 34

<211> 684

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 414, 472, 480, 490, 503, 507, 508, 513, 523, 574, 575, 598, 659, 662, 675

<223> n = A,T,C or G

<400> 34

```
actagtttat tcaagaaaag aacttactga ttctctgttt cctaaagcaa gagtggcagg 60
tgatcagggc tgggtgtagca tccggttcc ttagtgcagc taactgcatt tgtcactgat 120
gaccaaggag gaaatcacta agacatttga gaagcagtgg tatgaacgtt cttggacaag 180
ccacagttct gagccttaac cctgtagttt gcacacaaga acgagctcca cctccccctt 240
ttcaggagga atctgtgcgg atagattggc tggacttttc aatggttctg ggttgcaagt 300
gggcactgtt atggctgggt atggagcgga cagccccagg aatcagagcc tcagcccggc 360
```

```

tgcctgggtg gaaggtacag gtgttcagca ccttcggaaa aagggcataa agtngtgggg 420
gacaattctc agtccaagaa gaatgcattg accattgctg gctatttgct tncctagtan 480
gaattggatn catttttgac cangatnntt ctncatgct ttnttgcaat gaaatcaaatt 540
cccgcatat ctacaagtgg tatgaagtcc tgcnnccccc agagaggctg ttcaggcnat 600
gtcttccaag ggcagggtgg gttacacccat ttacacctcc ctctccccc agattatgna 660
cncagaagga atttntttcc tccc                                     684

```

```

<210> 35
<211> 614
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 17, 20, 152, 223, 267, 287, 304, 306, 316, 319, 321, 355,
365, 382, 391, 407, 419, 428, 434, 464, 467, 477, 480, 495,
499, 505, 515, 516, 522, 524, 527, 542, 547, 549, 567, 572,
576, 578
<223> n = A,T,C or G

```

```

<400> 35
actagtccaa cgcgttngcn aatattcccc tggtagccta ctcccttacc ccogaatatt 60
ggtaagatcg agcaatggct tcaggacatg ggttctcttc tctgtgatac attcaagtgc 120
tcaactgcatg aagactggct tgtctcagtg tntcaacctc accagggtcg tctcttggtc 180
cacacctcgc tccctgttag tgcggtatga cagcccccat canatgacct tggccaagtc 240
acggtttctc tgtgggtcaat gttggtnggc tgattgggtg aaagtanggt ggaccaaagg 300
aagncncgtg agcagncanc nccagttctg caccagcagc gcctccgtcc tactnggggtg 360
ttcngtttcc tcttgccctc gngtgggcta nggctgatt cgggaanatg cctttgcang 420
gaaggganga taantgggat ctaccaattg attctggcaa aacnatntct aagattnttn 480
tgctttatgt ggganacana tctancctc atttntgct gnanatnaca cctactcgt 540
gntcgancnc gtcttcgatt ttcgganaca cncantnaa tactggcggt ctgttgtaa 600
aaaaaaaaaa aaaa                                     614

```

```

<210> 36
<211> 686
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 222, 224, 237, 264, 285, 548, 551, 628, 643, 645, 665, 674
<223> n = A,T,C or G

```

```

<400> 36
gtggtgggac cggttctccg cttctcccca tcccctactt tctccctcc ctccctttcc 60
ctccctcgtc gactgttgct tgctggtcgc agactccctg accctccct caccctccc 120
taacctcggt gccaccgat tgcccttctt ttctgttgcc ccagcccagc cctagtgtca 180
gggcgggggc ctggagcagc ccgaggcact gcagcagaag ananaaaaga cacgacnaac 240
ctcagctcgc cagtcgggtc gctngcttcc cgcgcgatgg caatnagaca gacgccgctc 300
acctgctctg ggcacacgcg acccggtggtt gatttggcct tcagtggcat cacccttatg 360
ggtatttctt aatcagcgtc tgcaaagatg gttaacctat gctacgccag ggagatacag 420
gagactggat tggaacattt ttgggtgcta aaggtctggt tggggtgcaa cactgaataa 480
ggatgccacc aaagcagcta cagcagctgc agatttcaca gcccaagtgt gggatgctgt 540
ctcagganat naattgataa cctggctcat aacacattgt caagaatgtg gatttcccca 600

```

```

ggatattatt atttgtttac cggggganag gataactggt tcnctatatt taattgaaca 660
aactnaaaca aaanctaagg aaatcc 686

```

```

<210> 37
<211> 681
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 7, 10, 11, 19, 25, 32, 46, 53, 77, 93, 101, 103, 109, 115,
123, 128, 139, 157, 175, 180, 192, 193, 194, 212, 218, 226,
227, 233, 240, 241, 259, 260, 267, 289, 296, 297, 298, 312,
313, 314, 320, 325, 330, 337, 345, 346, 352, 353, 356
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 382, 385, 400, 427, 481, 484, 485, 491, 505, 515, 533, 542,
544, 554, 557, 560, 561, 564, 575, 583, 589, 595, 607, 619,
628, 634, 641, 645, 658, 670
<223> n = A,T,C or G

```

```

<400> 37
gagacanacn naacgtcang agaanaaaag angcatggaa cacaanccag gncgatggc 60
caccttccca ccagcancca gcgcccccca gcngccccca ngncgggang accangaetc 120
canoctgnat caatctganc tctattcctg gcccattcct acctcggagg tggangccgn 180
aaagggtcgca cnnncagaga agctgctgcc ancaccancc gcccnnccc tgnccgggctn 240
nataggaaac tggtgaccnn gctgcanaat tcatacagga gcacgggang ggcacnnnct 300
cacactgagt tnnngatgan gcctnaccan ggacctnccc cagcnnattg annacnggac 360
tgccggaggaa ggaagacccc gnacnggatc ctggccggcn tgccaccccc ccacccctag 420
gattatnccc cttgactgag tctctgagg gctaccgaa cccgctcca ttcctacca 480
natnntgctc natcgggact gacangctgg ggatnggagg ggctatcccc cancatcccc 540
tnanaccaac agcnacngan natnggggct cccnngggtc ggngcaacnc tcctncaccc 600
cgggcgnggc cttegggtgt gtctcctc cccnaattcc naaanggcgg gcccccnngt 660
ggactecten ttgttccctc c 681

```

```

<210> 38
<211> 687
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 3, 30, 132, 151, 203, 226, 228, 233, 252, 264, 279, 306,
308, 320, 340, 347, 380, 407, 429, 437, 440, 445, 448, 491,
559, 567, 586, 589, 593, 596, 603, 605, 606, 609, 626, 639,
655, 674, 682
<223> n = A,T,C or G

```

```

<400> 38
canaaaaaaa aaaacatggc cgaaccagn aagctgcgag atggcgccac ggcccccttt 60
ctcccgccct gtgtccggaa ggtttccctc cgaggcgccc cggtcccgcc aagcggagga 120
gaggcgggga cntgccccgg ccggagctca naggccttgg ggccgctctg ctctcccgcc 180
atcgcaaggg cggcgctaac ctnaggcctc cccgcaaagg tcccnangc ggngcgggcg 240

```

```

gggggctgtg anaaccgcaa aaanaacgct gggcgcgcn ggaacccgtc ccccccgcg 300
aaggananac ttccacagan gcagcggttc cacagccan agccaenttt ctaggggtgat 360
gcaccccgagt aagttcctgn cggggaagct caccgctgtc aaaaaanctc ttcgctccac 420
cggcgcacna agggggangan ggcangangc tgccgcccgc acaggtcate tgatcacgtc 480
gcccgcctta ntctgctttt gtgaatctcc actttgttca accccacccg ccgttctctc 540
ctccttgccg cttcctctna ccttaanaac cagcttcctc taccnctatng tanttntctc 600
gcnctngtng aaattaattc ggtccnccg aacctcttnc ctgtggcaac tgctnaaaga 660
aactgctgtt ctgnttactg cngtccc 687

```

```

<210> 39
<211> 695
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 300, 401, 423, 429, 431, 437, 443, 448, 454, 466, 492, 515,
523, 524, 536, 538, 541, 552, 561, 566, 581, 583, 619, 635,
636, 641, 649, 661, 694
<223> n = A,T,C or G

```

```

<400> 39
actagtctgg cctacaatag tgtgattcat gtaggacttc tttcatcaat tcaaaacccc 60
tagaaaaacg tatacagatt atataagtag ggataagatt tctaacattt ctgggctctc 120
tgacccctgc gctagactgt ggaaaggag tattattata gtatacaaca ctgctgttgc 180
cttattagtt ataacatgat aggtgctgaa ttgtgattca caatttaaaa aactgtaat 240
ccaaactttt ttttttaact gtagatcatg catgtgaatg ttaatgttaa ttgtttcaan 300
gttggttatgg gtagaaaaaa ccacatgcct taaaatttta aaaagcaggg cccaaactta 360
ttagttttaa attaggggta tgtttccagt ttgttattaa ntgggttatag ctctgtttag 420
aanaaatcna ngaacangat ttngaantt aagntgacat tatttnccag tgacttgta 480
atttgaaatc anacacggca cttccggtt ttgtnctatt ggnntttgaa tccaanccg 540
ntccaaatct tnttggaac ngtcnctta acttttttac nanatcttat ttttttattt 600
tggaatggcc ctattttaang ttaaaagggg ggggnccac naccattcnt gaataaaact 660
naatatatat ccttggtccc ccaaattta agng 695

```

```

<210> 40
<211> 674
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 403, 428, 432, 507, 530, 543, 580, 583, 591, 604, 608, 621,
624, 626, 639, 672
<223> n = A,T,C or G

```

```

<400> 40
actagtagtc agttgggagt gggtgctata ctttgacttc atttatatga atttccactt 60
tattaaataa tagaaaagaa aatcccgggtg cttgcagtag agttatagga cattctatgc 120
ttacagaaaa tatagccatg attgaaatca aatagtaaag gctgttctgg ctttttatct 180
tcttagctca tcttaataaa gtagtacact tgggatgcag tgcgtctgaa gtgctaata 240
gttgtaacaa tagcacaat cgaacttagg atgtgtttct tctcttctgt gtttcgattt 300
tgatcaattc tttaattttg ggaacctata atacagtttt cctattcttg gagataaaaa 360
ttaaattgat cactgatatt taagtcattc tgcttctcat ctnaatattc catattctgt 420

```

```
<210> 41
<211> 657
<212> DNA
<213> Homo sapiens
```

<400> 41							
gaaacatgca	agtaccacac	actgtttgaa	ttttgcacaa	aaagtgactg	tagggatcag		60
gtgatagccc	cggaatgtac	agtgtcttgg	tgcaccaaga	tgccttctaa	aggctgacat		120
accttggggac	cctaattgggg	cagagagtat	agccctagcc	cagtggtgac	atgaccactc		180
cctttggggag	gctgaagtta	aagggaatgg	tatgtgtttt	ctcatggaag	cagcacatga		240
atnggtnac	ngatgttaaa	ntaaggntct	antttgggtg	tcttgtcatt	tgaaaaantg		300
acacactcct	ancanctggt	aaaggggtgc	tggaagccat	ggaagaactc	taaaaacatt		360
agcatgggct	gatctgatta	cttcctggca	tcccgtcac	ttttatggga	agtcttatta		420
naaggatggg	ananttttcc	atataccttg	tgttggactc	ctggaacact	ctctaaattt		480
ccctctatta	aaaactctg	nccttactac	acttcctcct	tganggaata	gaaattcgacc		540
ttctctgac	ttagttcttg	gcatgggganc	cagcccaa	ttaaactctga	ctnttccggt		600
ttctccncaa	ctcacctact	tgaattggta	aaacctcctt	tggaattagn	aaaaacc		657

```
<210> 42
<211> 389
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 179, 317, 320
<223> n = A,T,C or G
```

```
<400> 42
actagtgtctg aggaatgttaa acaagtttgc tgggccttgc gagacttcac caggttggtt 60
cgatagctca cactcctgca ctgtgcctgt caccaggaa tgtctttttt aattagaaga 120
caggaagaaa acaaaaacca gactgtgtcc cacaatcaga aacctccgtt gtggcagang 180
ggccttcacc gccaccaggg tgtccgcga gacagggaga gactccagcc ttctgaggcc 240
atcctgaaga attcctgttt ggggggttgtg aaggaaaatc acccggtttt aaaaagatgc 300
tgttgctgc ccgcgtngtn ggggaaggac tggtttcctg gtgaatttct taaaagaaaa 360
atattttaag ttaagaaaaa aaaaaaaaaa
389
```

```
<210> 43
<211> 279
<212> DNA
<213> Homo sapiens
```

&lt;400&gt; 43

```

actagtgcac agctcctggg cttgagatgt cttctcgtta aggagatggg ccttttggag 60
gtaaaggata aaatgaatga gttctgtcat gattcactat tctagaactt gcatgacctt 120
tactgtgtta gctctttgaa tgttcttgaa atttttagact ttctttgtaa acaaataata 180
tgtccttata attgtataaa agctgttatg tgcaacagtg tggagatcct tgtctgattt 240
aataaaatac ttaaacactg aaaaaaaaaa aaaaaaaaaa 279

```

&lt;210&gt; 44

&lt;211&gt; 449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 245, 256, 264, 266, 273, 281, 323, 325, 337, 393

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 44

```

actagtagca tcttttctac aacgttaaaa ttgcagaagt agcttatcat taaaaaaca 60
caacaacaac aataacaata aatcctaagt gtaaatcagt tattctaccc cctaccaagg 120
atatcagcct gttttttccc ttttttctcc tgggaataat tgtgggcttc ttcccaaatt 180
tctacagcct ctttcctctt ctcattgctt agcttccttg tttgcacgca tgcgttgtgc 240
aagantgggc tgtttngctt ggantnccgt ccnagtggaa ncatgctttc ccttggttact 300
gttgggaagaa actcaaacct tcnancccta ggtgttncca ttttgtcaag tcatcactgt 360
atttttgtac tggcattaac aaaaaaagaa atnaaatatt gttocattaa actttaataa 420
aacttttaaaa gggaaaaaaa aaaaaaaaaa 449

```

&lt;210&gt; 45

&lt;211&gt; 559

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 263

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 45

```

actagtgtgg gggaatcacg gacacttaaa gtcaatctgc gaaataattc ttttattaca 60
cactcactga agttttttgag tcccagagag ccattctatg tcaaacattc caagtactct 120
ttgagagccc agcattacat caacatgccc gtgcagttca aaccgaagtc cgcaggcaaa 180
tttgaagctt tgcttgtcat tcaaacagat gaaggcaaga gtattgctat tgcactaatt 240
ggtgaagctc ttggaaaaaa ttnactagaa tactttttgt gttaagttaa ttacataagt 300
tgtattttgt taacttttata tttctacact acaattatgc ttttgtatat atattttgta 360
tgatggatat ctataattgt agattttggt tttaacaagct aatactgaag actcgactga 420
aatattatgt atctagccca tagtattgta cttaactttt acagggtgaa aaaaaaattc 480
tgtgtttgca ttgattatga tattctgaat aaatatggga atatatttta atgtgggtaa 540
aaaaaaaaaa aaaaaggaa 559

```

&lt;210&gt; 46

&lt;211&gt; 731

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



<220>

<221> misc\_feature

<222> 270, 467, 477, 502, 635, 660, 671, 688, 695, 697, 725

<223> n = A,T,C or G

<400> 46

```
actagttcta gtaccatggc tgtcatagat gcaaccatta tattccattt agttttcttcc 60
tcaggttccc taacaattgt ttgaaactga atatatatgt ttatgtatgt gtgtgtgttc 120
actgtcatgt atatggtgta tatgggatgt gtgcagtttt cagttatata tatattcata 180
tatacatatg catatatatg tataatatac atatatacat gcatacactt gtataatata 240
catatatata cacatatatg cacacatatn atcactgagt tccaaagtga gtcttttattt 300
ggggcaattg tattctctcc ctctgtctgc tcaactgggcc ttgcaagac atagcaattg 360
cttgatttcc ttgggataag agtcttatct tcggcactct tgactctagc ctttaacttta 420
gatttctatt ccagaatacc tctcatatct atcttaaaac ctaaganggg taaagangtc 480
ataagattgt agtatgaaag antttgctta gttaaattat atctcaggaa actcattcat 540
ctacaaatta aattgtaaaa tgatggtttg ttgtatctga aaaaatgttt agaacaagaa 600
atgtaactgg gtacctgtta tatcaaagaa cctcnattta ttaagtctcc tcatagccan 660
atccttatat ngccctctct gacctgantt aatananact tgaataatga atagttaatt 720
taggnntggg c 731
```

<210> 47

<211> 640

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 5, 28, 106, 153, 158, 173, 176, 182, 189, 205, 210, 214,

225, 226, 229, 237, 260, 263, 269, 277, 281, 282, 322, 337,

338, 354, 365, 428, 441, 443, 456, 467, 476, 484, 503, 508,

554, 567, 575, 579, 588, 601, 606, 609, 611, 621, 636

<223> n = A,T,C or G

<400> 47

```
tgcgngccgg tttggccctt ctttgtanga cactttcatc cgccctgaaa ttttcccgat 60
cgttaataac tcttcaggtc cctgcctgca cagggttttt tcttantttg ttgcctaaca 120
gtacaccaa tgtgacatcc tttcaccaat atngattnct tcataccaca tcntcnatgg 180
anacgactnc aacaattttt tgatnaccn aaanactggg ggctnnaana agtacantct 240
ggagcagcat ggacctgtcn gcnactaang gaacaanagt nntgaacatt tacacaacct 300
ttgggtatgtc ttactgaaag anagaaacat gcttctnncc ctagaccaacg aggncaaccg 360
caganattgc caatgccaaag tccgagcggg tagatcaggt aatacattcc atggatgcat 420
tacatacntt gtccccgaaa nanaagatgc cctaanggct tcttcanact ggtecongaaa 480
acanctacac ctggtgcttg ganaacanac tctttggaag atcatctggc acaagttccc 540
cccagtgggg tttnccttgg cacctanctt accanactna ttcggaancc attctttgcc 600
ntggcnttnt nttgggacca ntcttctcac aactgnaccc 640
```

<210> 48

<211> 257

<212> DNA

<213> Homo sapiens

<400> 48

```
actagtatat gaaaatgtaa atatcacttg tgtactcaaa caaaagttgg tcttaagctt 60
ccaccttgag cagccttgga aacctaacct gcctctttta gcataatcac attttctaaa 120
```

```

tgatttttctt tgttcctgaa aaagtgattt gtatttagttt tacatttggtt ttttggaaga 180
ttatattttgt atatgtatca tcataaaata tttaaataaa aagtatcttt agagtgaaaa 240
aaaaaaaaaa aaaaaaa                                     257

```

```

<210> 49
<211> 652
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 410, 428, 496, 571, 647
<223> n = A,T,C or G

```

```

<400> 49
actagttcag atgagtggct gctgaagggg ccccttgctc attttcatta taacccaatt 60
tccacttatt tgaactctta agtcataaat gtataatgac ttatgaatta gcacagttaa 120
gttgacacta gaaactgccc atttctgtat tacactatca aataggaaac attggaaaga 180
tggggaaaaa aatcttattt taaaatggct tagaaagttt tcagattact ttgaaaattc 240
taaacttctt tctgtttcca aaacttgaaa atatgtagat ggactcatgc attaagactg 300
ttttcaaagc tttcctcaca tttttaaagt gtgattttcc ttttaataata catatttatt 360
ttcttttaaag cagctatatc ccaacccatg actttggaga tatacctatn aaaccaatat 420
aacagcangg ttattgaagc agctttctca aatgttgctt cagatgtgca agttgcaaatt 480
tttattgtat ttgtanaata caatttttgt tttaaactgt atttcaatct atttctccaa 540
gatgettttc atatagagtg aaatatccca ngataactgc ttctgtgtcg tcgcatttga 600
cgcataactg cacaaatgaa cagtgtatac ctcttggttg tgcattnacc cc 652

```

```

<210> 50
<211> 650
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 237, 270, 311, 443, 454, 488, 520, 535, 539, 556, 567, 594,
603, 634
<223> n = A,T,C or G

```

```

<400> 50
ttgcgctttg attttttttag ggcttgtgcc ctgtttcact tatagggtct agaatgcttg 60
tgttgagtaa aaaggagatg cccaatatcc aaagctgcta aatgttctct ttgccataaa 120
gactccgtgt aactgtgtga acacttgga tttttctcct ctgtcccgag gtcgtcgtct 180
gctttctttt ttgggttctt tctagaagat tgagaaatgc atatgacagg ctgagancac 240
ctccccaaac acacaagctc tcagccacan gcagcttctc cacagcccca gcttcgcaca 300
ggctcctgga nggctgcctg ggggaggcag acatgggagt gccaaagtg ccagatgggt 360
ccaggactac aatgtcttta tttttaactg ttgtccactg ctgcccctac cctgcccgg 420
ctctggagta ccgtctgccc canacaagtg ggantgaaat gggggtggg gggaaactg 480
attcccantt agggggtgcc taactgaaca gtagggatan aagggtgtgaa cctgngaant 540
gcttttataa attatnttcc ttgttanatt tattttttta tttaatctct gttnaactgc 600
cnggggaaaa ggggaaaaaa aaaaaaaaaa tctnttttaa cacatgaaca 650

```

```

<210> 51
<211> 545
<212> DNA

```

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 66, 159, 195, 205, 214, 243, 278, 298, 306, 337, 366, 375,  
382, 405, 446, 477, 492, 495, 503, 507, 508, 521, 537

<223> n = A,T,C or G

<400> 51

```
tggcgtgcaa ccagggtagc tgaagtttgg gtctgggact ggagattggc cattaggcct 60
cctganattc cagctccctt ccaccaagcc cagtcttgct acgtggcaca gggcaaacct 120
gactcccttt gggcctcagt ttccctcccc cttcatgana tgaaaagaat actacttttt 180
cttgttggtc taacnttgct ggacncaaag tgtngtcatt attgttgat tggtgatgt 240
gtncaaaact gcagaagctc actgcctatg agaggaanta agagagatag tggatganag 300
ggacanaagg agtcattatt tggatatagat ccaccntcc caacctttct ctctcagtc 360
cctgencctc atgtntctgg tntggtgagt cttttgtgcc accanccatc atgctttgca 420
ttgctgccat cctgggaagg ggggtgnatc tctcacaact tgttgatc gtttganatg 480
catgctttct tnatnaaaca aanaannaa tgtttgacag ngtttaaaat aaaaaanaaa 540
caaaa                                           545
```

<210> 52

<211> 678

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 98, 119, 121, 131, 136, 139, 140, 142, 143, 163, 168, 172,  
176, 184, 189, 190, 191, 200, 201, 205, 207, 221, 223, 229,  
230, 237, 240, 241, 255, 264, 266, 267, 276, 280, 288, 289,  
291, 297, 301, 306, 308, 314, 315, 326, 332, 335, 337

<223> n = A,T,C or G

<221> misc\_feature

<222> 339, 341, 343, 344, 345, 347, 350, 355, 356, 358, 362, 363,  
372, 379, 395, 397, 398, 400, 403, 412, 414, 421, 423, 431,  
435, 438, 439, 450, 457, 463, 467, 471, 474, 480, 483, 484,  
487, 490, 491, 492, 493, 499, 500, 504, 508, 518, 536

<223> n = A,T,C or G

<221> misc\_feature

<222> 538, 549, 551, 552, 554, 556, 557, 562, 563, 567, 571, 572,  
576, 579, 590, 592, 595, 598, 606, 609, 613, 620, 622, 624,  
626, 631, 634, 638, 641, 647, 654, 660, 661, 674

<223> n = A,T,C or G

<400> 52

```
actagtagaa gaactttgcc gcttttgtgc ctctcacagg cgctaaaagt cattgccatg 60
ggaggaagac gatttggggg gggagggggg gggggcangg tccgtggggc tttccctant 120
ntatctccat ntccantggn cnntgtcgcc tcttccctcg tencattnga anttantccc 180
tggnccecn nccctctccn nectnccct cccccctccg ncnccctccn cttttntan 240
ncttcccat ctccntcccc cctnanngtc ccaacnccgn cagcaatnnc nacttntctc 300
nctcncncc tcenccggtt cttctnttct cnactntnnc ncnntnccn tgccnntnaa 360
annctctccc cnetgcaanc gattctctcc ctccnccnnc ctntccactc cntncttctc 420
```

```
<210> 53
<211> 502
<212> DNA
<213> Homo sapiens
```

[illegible]

```
<210> 54
<211> 494
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 431, 442, 445
<223> n = A, T, C or G
```

<400>	54						
actagtccaa	gaaaaaatatg	cttaaatgtat	attacaaaagg	cttttgtatat	gttaaacctgt	60	
tttaatgcc	aaagtttgct	ttgtccacaa	tttccttaag	acctcttcag	aaagggattt	120	
gtttgcctta	atgaatactg	ttgggaaaaa	acacagtata	atgagtgaaa	agggcagaag	180	
caagaaattt	ctacatctta	gogactccaa	gaagaatgag	tatccacatt	tagatggcac	240	
attatgagga	ctttaatctt	tccttaaac	caataatgtt	ttcttttttc	ttttattcac	300	
atgatttcta	agtataTTTT	tcatgcagga	cagtttttca	accttgatgt	acagtgactg	360	
tgtaaattt	ttctttcagt	ggcaacctct	ataatcttta	aaatatggtg	agcatcttgt	420	
ctgttttgaa	ngggatatga	cnatnaatct	atcagatggg	aaatcctgtt	tccaagtttag	480	
aaaaaaaaaa	aaaa					494	

```
<210> 55
<211> 606
<212> DNA
<213> Homo sapiens
```

<220>  
 <221> misc\_feature  
 <222> 375, 395, 511, 542, 559, 569, 578, 581  
 <223> n = A,T,C or G

<400> 55  
 actagtaaaa agcagcattg ccaaataatc cctaattttc cactaaaaat ataatgaaat 60  
 gatgttaagc tttttgaaaa gtttaggtta aacctactgt tgtagatta atgtatttgt 120  
 tgcttccctt tatctggaat gtggcattag cttttttatt ttaaccctct ttaattctta 180  
 ttcaattcca tgacttaagg ttggagagct aaacactggg atttttggat aacagactga 240  
 cagttttgca taattataat cggcattgta catagaaaagg atatggctac cttttgttaa 300  
 atctgcactt tctaaatata aaaaaaggga aatgaagtat aaatcaattt ttgtataatc 360  
 tgtttgaaac atgantttta tttgcttaat attanggctt tgcccttttc tgttagtctc 420  
 ttgggatacct gtgtaaaact gttctcatta aacaccaaac agttaagtcc attctctggt 480  
 actagctaca aattccgttt catattctac ntaacaattt aaattaactg aaatatttct 540  
 anatggtcta cttctgtcnt ataaaaacna aacttgantt nccaaaaaaa aaaaaaaaaa 600  
 aaaaaa 606

<210> 56  
 <211> 183  
 <212> DNA  
 <213> Homo sapiens

<400> 56  
 actagtatat ttaaacttac aggcttattt gtaatgtaaa ccaccatttt aatgtactgt 60  
 aattaacatg gttataatac gtacaatcct tccctcatcc catcacacaa ctttttttgt 120  
 gtgtgataaa ctgattttgg tttgcaataa aaccttgaaa aataaaaaaaaa aaaaaaaaaa 180  
 aaa 183

<210> 57  
 <211> 622  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 358, 368, 412, 414, 425, 430, 453, 455, 469, 475, 495, 499,  
 529, 540, 564, 575, 590  
 <223> n = A,T,C or G

<400> 57  
 actagtcaact actgtcttct ccttgtagct aatcaatcaa tattcttccc ttgcctgtgg 60  
 gcagtggaga gtgctgctgg gtgtacgctg cacctgccca ctgagttggg gaaagaggat 120  
 aatcagtgag cactgttctg ctgagagctc ctgatctacc ccacccccta ggatccagga 180  
 ctgggtcaaa gctgcatgaa accaggccct ggcagcaacc tgggaatggc tggaggtggg 240  
 agagaacctg acttctcttt cctctccct cctccaacat tactggaact ctatcctggt 300  
 agggatcttc tgagcttggt tccctgctgg gtgggacaga agacaaaagg gaagggagg 360  
 tctacaanaa gcagcccttc tttgtcctct ggggttaatg agcttgacct ananttcagt 420  
 gaganaccan aagcctctga tttttaattt cntnaaatg tttgaagtnt atatntacat 480  
 atatatattt ctttnaatnt ttgagtcttt gatatgtctt aaaatccant ccctctgcn 540  
 gaaacctgaa ttaaaaccat gaanaaaaat gtttncccta aagatgttan taattaattg 600  
 aaacttgaaa aaaaaaaaaa aa 622

<210> 58

<211> 433  
 <212> DNA  
 <213> Homo sapiens

<400> 58  
 gaacaaattc tgattgggta tgtaccgtca aaagacttga agaaatttca tgattttgca 60  
 gtgtggaagc gttgaaaatt gaaagttact gcttttccac ttgctcatat agtaaaggga 120  
 tcctttcagc tgccagtgtt gaataatgta tcatccagag tgatgttatc tgtgacagtc 180  
 accagcttta agctgaacca ttttatgaat accaaataaa tagacctctt gtactgaaaa 240  
 catatttggt actttaatcg tgctgcttgg atagaaatat ttttactggt tcttctgaat 300  
 tgacagtaaa cctgtccatt atgaatggcc tactgttcta ttatttggtt tgacttgaat 360  
 ttatccacca aagacttcat ttgtgtatca tcaataaagt tgtatgtttc aactgaaaaa 420  
 aaaaaaaaaa aaa 433

<210> 59  
 <211> 649  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 22, 190, 217, 430, 433, 484, 544, 550, 577, 583, 594  
 <223> n = A,T,C or G

<400> 59  
 actagttatt atctgacttt cnggttataa tcatttctaag gagtgtgaag tagcctctgg 60  
 tgtcatttgg atttgcattt ctctgatgag tgatgctatc aagcaccttt gctgggtgctg 120  
 ttggccatat gtgtatgttc cctggagaag tgtctgtgct gagccttggc ccacttttta 180  
 attaggcgtn tgtcttttta ttactgagtt gtaaganttc ttatatatt ctggattcta 240  
 gacccttata agatacatgg ttgcaaaata ttttctcca ttctgtgggt tgtgttttca 300  
 ctttatcgat aatgtcctta gacatataat aaatttgtat tttaaaagtg acttgatttg 360  
 ggctgtgcaa ggtgggctca cgcttgtaat ccagcactt tgggagactg aggtgggtgg 420  
 atcatatgan gangctagga gttcgaggtc agcctggcca gcatagcgaa aacttgcttc 480  
 tacnaaaaaa acaaaaatta gtcaggcatg gtgggtgcacg tctgtaatac cagcttctca 540  
 ggangctgan gcacaaggat cacttgaacc ccagaangaa gangttgcag tganctgaag 600  
 atcatgccag ggcaacaaaa atgagaactt gtttaaaaaa aaaaaaaaaa 649

<210> 60  
 <211> 423  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 209, 222, 277, 389, 398  
 <223> n = A,T,C or G

<400> 60  
 actagttcag gccttccagt tcaactgacaa acatggggaa gtgtgccag ctggctggaa 60  
 acctggcagt gataccatca agcctgatgt ccaaaagagc aaagaatatt tctccaagca 120  
 gaagtgagcg ctgggctgtt ttagtgccag gctgcggtgg gcagccatga gaacaaaacc 180  
 tcttctgtat tttttttt ctttagtana acacaagact cngattcagc cgaattgtgg 240  
 tgtcttaciaa ggcagggtt tctacaggg ggtgganaaa acagcctttc ttcctttggt 300  
 aggaatggcc tgagttggcg ttgtgggcag gctactggtt tgtatgatgt attagtagag 360

```
caacccatta atcttttgta gtttgatna aacttganct gagaccttaa acaaaaaaaaa 420
aaa 423
```

```
<210> 61
<211> 423
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 195, 285, 295, 329, 335, 340, 347, 367, 382, 383, 391, 396,
418
<223> n = A,T,C or G
```

```
<400> 61
cgggactgga atgtaaagtg aagttcggag ctctgagcac gggtctttcc cgccgggtcc 60
tccctcccca gacccagag ggagaggccc accccgcccc gccccgcccc agccctgct 120
caggctctgag tatggctggg agtcgggggc cacaggcctc tagctgtgct gctcaagaag 180
actggatcag ggtanctaca agtgccggg ccttgccctt gggattctac cctgttcccta 240
atttggtgtt ggggtgcggg gtccctggcc cctttttcca cactnccctc ctcengacag 300
caacctccct tggggcaatt gggcctggnt ctcncccgnt tggtgcnacc ctttgttggt 360
ttaaggncct taaaaatgtt annttttccc ntgcnggggt taaaaaagga aaaaactnaa 420
aaa 423
```

```
<210> 62
<211> 683
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 218, 291, 305, 411, 416, 441, 443, 453, 522, 523, 536, 542,
547, 566, 588, 592, 595, 603, 621, 628, 630, 632, 644, 645,
648, 655, 660, 672, 674, 676, 677, 683
<223> n = A,T,C or G
```

```
<400> 62
gctggagagg ggtacggact ttcttgaggt tgtcccaggt tggaatgaga ctgaactcaa 60
gaagagaccc taagagactg gggaatgggt cctgccttca ggaaagtga agacgcttag 120
gctgtcaaca cttaaaggaa gtccccttga agcccagagt ggacagacta gacccattga 180
tggggccact ggccatggtc cgtggacaag acattccngt gggccatggc acaccggggg 240
ggatcaaaaat gtgtacttgt ggggtctcgc cccttgccaa aaccaaaacca ntcccactcc 300
tgtcnttga ctttcttccc attccctcct ccccaaatgc acttcccctc ctccctctgc 360
ccctcctgtg tttttggaat tctgtttccc tcaaaattgt taatttttta nttttngacc 420
atgaacttat gtttggggtc nangttcccc ttnccaatgc atactaatat attaatggtt 480
atattttttt gaaatatattt ttaatgaact tggaaaaaat tnntggaatt tccttncctc 540
cntttntttt ggggggggtg gggggntggg ttaaaatttt tttggaancc cnatnggaaa 600
ttnttacttg gggcccccct naaaaaantn anttccaatt cttnnatngc cctntttccn 660
ctaaaaaaaa ananannaaa aan 683
```

```
<210> 63
<211> 731
<212> DNA
<213> Homo sapiens
```

<220>

<221> misc\_feature

<222> 237, 249, 263, 288, 312, 317, 323, 326, 337, 352, 362, 370,  
377, 400, 411, 414, 434, 436, 446, 457, 473, 486, 497, 498,  
502, 512, 531, 546, 554, 563, 565, 566, 588, 597, 608, 611,  
613, 615, 627, 632, 640, 641, 644, 654, 660, 663, 665

<223> n = A,T,C or G

<221> misc\_feature

<222> 671, 678, 692, 697, 698, 699, 704, 705, 712, 714, 717, 718,  
719, 723, 725, 730, 731

<223> n = A,T,C or G

<400> 63

```
actagtcata aaggggtgtgc gcgtcttcga cgtggcggtc ttggcgccac tgctgcgaga 60
cccgccctcg gacctcaagg tcctccactt ggtgcgtgat ccccgcgcgg tggcgagttc 120
acggatccgc tcgcgccacg gcctcatccg tgagagccta cagggtggtgc gcagccgaga 180
ccgcgagctc accgcatgcc cttcttggag gccgcgggcc acaagcttgg cgcccanaaa 240
gaaggcgtng ggggcccgcgca aantaccacg ctctggggcg tatggaangt cctcttgcaa 300
taatattggt tnaaaanctg canaanagcc cctgcancct cctgaactgg gntgcagggc 360
cncttacctn gtttgngtgc ggttacaaag aacctgtttn ggaaaaccct nccnaaaacc 420
ttccgggaaa attntncaaa ttttnttgg ggaattnttg ggtaaaccct ccnaaaatgg 480
gaaacntttt tgccctnnaa antaaaccat tnggttccg gggccccccc ncaaaaccct 540
ttttntttt tttntgcccc cantncccc ccggggcccc ttttttngg ggaaaanccc 600
ccccctncc nanantttta aaaggngggg anaatttttn nttnccccc gggnccccc 660
ggngntaaaa nggtttcncc cccccgagg gnggggnnnc ctcnnaaacc cntntcnna 720
ccncttttn n 731
```

<210> 64

<211> 313

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 240

<223> n = A,T,C or G

<400> 64

```
actagttgtg caaaccacga ctgaagaaag acgaaaagt ggaaataact tgcaacgtct 60
gttagagatg gttgctacac atgttgggtc tgtagagaaa catcttgagg agcagattgc 120
taaagttgat agagaatatg aagaatgcat gtcagaagat ctctcgaaa atattaaaga 180
gattagatg aagtatgaga agaaagctac tctaattaag tcttctgaag aatgaagatn 240
aatgttgat catgtatata tatccatagt gaataaaatt gtctcagtaa agttgtaaaa 300
aaaaaaaaaa aaa 313
```

<210> 65

<211> 420

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature



<222> 400, 402, 403, 404, 405, 406, 409, 411, 412, 414, 415, 416  
 <223> n = A,T,C or G

<400> 65  
 actagttccc tggcaggcaa gggcttccaa ctgaggcagt gcatgtgtgg cagagagagg 60  
 caggaagctg gcagtggcag cttctgtgtc tagggagggg tgtggctccc tccttccctg 120  
 tctgggaggt tggaggaag aatctaggcc ttagcttgcc ctctgccac ccttccccctt 180  
 gtagatactg ccttaacact cctcctctc tcagctgtgg ctgccacca agccagggtt 240  
 ctccgtgtc actaatttat ttccaggaaa ggtgtgtgga agacatgagc cgtgtataat 300  
 atttgtttta acattttcat tgcaagtatt gaccatcatc cttggttgtg tatcgttgta 360  
 acacaaatta atgatattaa aaagcatcca aacaaagccn annnnnaana nnannngaaa 420

<210> 66  
 <211> 676  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 328, 454, 505, 555, 586, 612, 636, 641  
 <223> n = A,T,C or G

<400> 66  
 actagtttcc tatgatcatt aaactcattc tcagggttaa gaaaggaatg taaattttctg 60  
 cctcaatttg tacttcatca ataagttttt gaagagtgcg gatttttagt caggtcttaa 120  
 aaataaaactc acaaactctgg atgcatttct aaattctgca aatgtttcct ggggtgactt 180  
 aacaaggaat aatcccacaa tatacctagc tacctaatac atggagctgg ggtcaaccc 240  
 actgttttta aggatttgcg cttacttggtg gctgaggaaa aataagtagt tccgagggaa 300  
 gtagttttta aatgtgagct tatagatngg aaacagaata tcaacttaat tatggaaatt 360  
 gttagaaacc tgttctcttg ttatctgaat cttgattgca attactattg tactggatag 420  
 actccagccc attgcaaagt ctccagatata ttanctgtgt agttgaattc cttggaaatt 480  
 ctttttaaga aaaaattgga gttttaaaga aataaacccc tttgttaaat gaagcttggc 540  
 tttttggtga aaaanaatca tccgcaggg cttattgttt aaaaanggaa ttttaagcct 600  
 ccctggaaaa anttgtaaat taaatgggga aaatgntggg naaaaattat ccgttagggg 660  
 ttaaaggga aactta 676

<210> 67  
 <211> 620  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 419, 493, 519, 568, 605, 610  
 <223> n = A,T,C or G

<400> 67  
 caccattaaa gctgcttacc aagaacttcc ccagcatttt gacttccttg tttgatagct 60  
 gaattgtgag caggtgatag aagagccttt ctagttgaac atacagataa tttgctgaat 120  
 acattccatt taatgaagg gttacatctg ttacgaagct actaagaagg agcaagagca 180  
 taggggaaaa aaatctgac agaacgcac aaactcacat gtgccccctc tactacaaac 240  
 agattgtagt gctgtggtgg tttattccgt tgtgcagaac ttgcaagctg agtcactaaa 300  
 cccaaagaga ggaaattata ggtagttaa acattgtaat cccaggaact aagtttaatt 360

```
<210> 68
<211> 551
<212> DNA
<213> Homo sapiens
```

<400>	68						
actagtagct	ggtacataat	cactgaggag	ctattttctta	acatgctttt	atagaccatg	60	
ctaattgctag	accagtattt	aagggctaatt	ctcacacctc	cttagctgta	agagtctggc	120	
ttagaacaga	cctctctgtg	caataacttg	tggccactgg	aaatccctgg	gccggcattt	180	
gtattggggg	tgcaatgact	cccaagggcc	aaaagagtta	aaggcacgac	tgggatttct	240	
tctgagactg	tggtgaaact	ccttccaagg	ctgagggggg	cagtangtgc	tctggggagg	300	
actcggcacc	actttgatat	tcaacaagcc	acttgaagcc	caattataaa	attgtttattt	360	
tacagctgat	ggaactcaat	ttgaaccttc	aaaactttgt	tagtttatcc	tattatattg	420	
ttaaacctaa	ttacatttgt	ctagcattgg	atttggttcc	tgtngcatat	gtttttttcn	480	
cctatgtgct	ccccccccc	nnatcttaat	ttaaaccnca	attttgcnat	tccccnnnnn	540	
nannnnanna	a					551	

```
<210> 69
<211> 396
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 235, 310, 323, 381  
<223> n = A,T,C or G
```

```
<400> 69
cagaaatgga aagcagagtt ttcattttctg tttataaacg tctccaaaca aaaatggaaa 60
gcagagtttt cattaaatcc ttttaccttt tttttttctt ggtaatcccc tcaaataaca 120
gtatgtggga tattgaatgt taaagggata tttttttcta ttatttttat aattgtacaa 180
aattaagcaa atgttaaaag ttttatatgc tttattaatg ttttcaaaag gtatnataca 240
tgtgatacat tttttaagct tcagttgctt gtcttctggt actttctggt atgggctttt 300
ggggagccan aaaccaatct acnatctctt tttgtttgcc aggacatgca ataaaattta 360
aaaaataaat aaaaactatt naqaaattga aaaaaa 396
```

```
<210> 70
<211> 536
<212> DNA
<213> Homo sapiens
```

<221> misc\_feature  
 <222> 388, 446, 455  
 <223> n = A,T,C or G

<400> 70  
 actagtgcaa aagcaaatat aaacatcgaa aaggcggttc tcacgtagc tgaagatatc 60  
 cttcgaaaga cccctgtaaa agagcccaac agtgaaaatg tagatatcag cagtggagga 120  
 ggcgtagacag gctggaagag caaatgctgc tgagcattct cctgttccat cagttgccat 180  
 ccactacccc gttttctctt cttgctgcaa aataaaccac tctgtccatt ttttaactota 240  
 aacagatatt tttgtttctc atcttaacta tccaagccac ctattttatt tgttctttca 300  
 tctgtgactg cttgctgact ttatcataat tttcttcaaa caaaaaaatg tatagaaaaa 360  
 tcatgtctgt gacttcattt ttaaatgnta cttgctcagc tcaactgcat ttcagttggt 420  
 ttatagtcca gttcttatca acattnaaac ctatngcaat catttcaaat ctattctgca 480  
 aattgtataa gaataaaagt tagaatttaa caattaaaaa aaaaaaaaaa aaaaaa 536

<210> 71  
 <211> 865  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 22, 35, 39, 56, 131, 138, 146, 183, 194, 197, 238, 269, 277,  
 282, 297, 316, 331, 336, 340, 341, 346, 349, 370, 376, 381,  
 382, 392, 396, 397, 401, 433, 444, 445, 454, 455, 469, 472,  
 477, 480, 482, 489, 497, 499, 511, 522, 526, 527  
 <223> n = A,T,C or G

<221> misc\_feature  
 <222> 545, 553, 556, 567, 574, 580, 610, 613, 634, 638, 639, 663,  
 672, 689, 693, 694, 701, 704, 713, 723, 729, 732, 743, 744,  
 749, 761, 765, 767, 769, 772, 774, 780, 783, 788, 792, 803,  
 810, 824, 840, 848  
 <223> n = A,T,C or G

<400> 71  
 gacaaagcgt taggagaaga anagaggcag ggaanactnc ccaggcacga tggccnccctt 60  
 cccaccagca accagcgccc cccaccagcc cccaggcccg gacgacgaag actccatcct 120  
 ggattaatct nacctctntc gcctgnccca ttctacctc ggaggtggag gccggaaaagg 180  
 tcnaccaag aganaantctg ctgccaacac caaccgcccc agccctggcg ggcacganag 240  
 gaaactggtg accaatctgc agaattctna gaggaanaag cnaggggccc cgcgctnaga 300  
 cagagctgga tatgangcca gaccatggac nctacnccn ncaatncana cgggactgcg 360  
 gaagatggan gaccncgac nngatcaggc cngctnncca nccccccacc cctatgaatt 420  
 attcccgcgt aangaatctc tgannggctt ccannaaagc gcctccccnc cnaacgnaan 480  
 tncaacatng ggattanang ctgggaactg naaggggcaa ancctnnaat atccccagaa 540  
 acaantcttc ccnaanaaac tggggcnctc catnggtggn accaactatt aactaaaccg 600  
 cagcgcaagn aantataaaa ggggggcccc tcncggnng accccctttt gtcccttaat 660  
 ganggttata cnccttgctg accatggtnc ccnnttctgt ntgnatgttt ccnctccct 720  
 ccnctatnt cnagccgaac tcnnatttnc ccgggggtgc nactnantng tncncccttn 780  
 ttngttgncc cngcccttcc cngcggaacn cgtttccccc ttantaacgg cacccggggn 840  
 aagggtgntt ggcceccctcc ctccc 865

<210> 72  
 <211> 560

<212> DNA  
<213> Homo sapiens

<220>

<221> misc\_feature

<222> 83, 173, 183, 186, 209, 211, 215, 255, 321, 322, 323, 335,  
344, 357, 361, 368, 394, 412, 415, 442, 455, 469, 472, 475,  
487, 513, 522, 528, 531, 534, 546

<223> n = A,T,C or G

<400> 72

```
cctggacttg tcttggttcc agaacctgac gacccggcga cggcgacgtc tcttttgact 60
aaaagacagt gtccagtgtc ccngcctagg agtctacggg gaccgcctcc cgcgcgccca 120
ccatgcccaa cttctctggc aactggaaaa tcatccgatc ggaaaacttc gangaattgc 180
tctnaantgct ggggggtgaat gtgatgctna ngaanattgc tgtggctgca gcgtccaagc 240
cagcagtggg gatcnaacag gagggagaca ctttctacat caaaacctcc accaccgtgc 300
gcaccacaaa gattaacttc nnngttgggg aggantttga ggancaaaact gtggatngga 360
ngcctgtnaa aacctggtga aatgggagaa tganaataaa atggtctgtg ancaaaaact 420
cctgaaagga gaaggccccc anaactcctg gaccngaaaa actgaccnc cnatngggga 480
actgatnctt gaaccctgaa cgggcgggat ganccttttt tnttgccncc naanggggtc 540
tttccntttc cccaaaaaaa                                     560
```

<210> 73

<211> 379

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 8, 17, 18, 21, 26, 29, 30, 32, 53, 56, 67, 71, 81, 102, 104,  
111, 112, 114, 119, 122, 124, 125, 134, 144, 146, 189, 190,  
214, 215, 219, 220, 235, 237, 246, 280, 288, 302, 310, 313,  
319, 322, 343, 353, 354

<223> n = A,T,C or G

<400> 73

```
ctggggancc ggcggtnngc nccatntcnn gncgcgaagg tggcaataaa aanccnctga 60
aaccgcncaa naaacatgcc naagatatgg acgaggaaga tngngctttc nngnacaanc 120
gnanngagga acanaacaaa ctcnangagc tctcaagcta atgccgcggg gaaggggccc 180
ttggccacnn gtggaattaa gaaatctggc aaanngtann tggtccttgt gcctnangag 240
ataagngacc ctttatttca tctgtattta aacctctctn ttccctgnca taacttcttt 300
tnccacgtan agntggaant anttggtgtc ttggactgtt gtncatttta gannaaaactt 360
ttgttcaaaa aaaaaataa                                     379
```

<210> 74

<211> 437

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 145, 355

<223> n = A,T,C or G

&lt;400&gt; 74

```

actagttcag actgccacgc caaccccgaga aaatacccca catgccagaa aagtgaagtc 60
ctaggtgttt ccatctatgt ttcaatctgt ccatctacca ggccctcgca taaaaacaaa 120
acaaaaaaaaac gctgccaggt tttanaagca gttctggtct caaaaccatc aggatcctgc 180
caccagggtt cttttgaaat agtaccacat gtaaaaggga atttggcttt cacttcatct 240
aatcactgaa ttgtcaggct ttgattgata attgtagaaa taagtagcct tctgttgtgg 300
gaataagtta taatcagtat tcctctcttt gttttttgtc actcttttct ctctnattgt 360
gtcatttgta ctgtttgaaa aatatttctt ctataaaaatt aaactaacct gccttaaaaa 420
aaaaaaaaaa aaaaaaa 437

```

&lt;210&gt; 75

&lt;211&gt; 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 440, 513, 539, 551

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 75

```

ctccgctcgcc gccaaagatga tgtgcgggggc gccctccgcc acgcagccgg ccaccgcccga 60
gaccagcac atcgccgacc aggtgaggtc ccagcttgaa gagaagaaa acaagaagtt 120
ccctgtgttt aaggccgtgt cattcaagag ccaggtggtc gcggggacaa actacttcat 180
caaggtgcac gtcggcgacg aggacttctg acacctgca gtgttccaat ctctccctca 240
tgaaaacaag cccttgacct tatctaacta ccagaccaac aaagccaagc atgatgagct 300
gacctatttc tgatcctgac tttggacaag gcccttcagc cagaagactg acaaagtcac 360
cctccgtcta ccagagcgtg cacttgtgat cctaaaataa gcttcatctc cgggctgtgc 420
ccttgggggtg gaaggggcan gatctgcact gcttttgcat ttctcttctt aaatttcatt 480
gtgttgattc tttccttcca ataggatgac ttnattactt tcagaatatt ttccaaatna 540
gatatatattt naaaatcctt aaaaaaaaaa aaaaaaaaaa 579

```

&lt;210&gt; 76

&lt;211&gt; 666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 411, 470, 476, 491, 506, 527, 560, 570, 632, 636, 643, 650, 654, 658

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 76

```

gtttatccta tctctccaac cagattgtca gctccttgag ggcaagagcc acagtatatt 60
tccctgtttc ttccacagtg cctaataata ctgtggaact aggttttaac aatttttta 120
ttgatgttgt tatgggcagg atggcaacca gaccattgtc tcagagcagg tgctggctct 180
ttcctggcta ctccatgttg gctagcctct ggtaacctct tacttattat cttcaggaca 240
ctcactacag ggaccaggga tgatgcaaca tccttgtctt tttatgacag gatgtttgct 300
cagcttctcc aacaataaaa agcacgtggg aaaacacttg cggatattct ggactgtttt 360
taaaaaatat acagtttacc gaaaatcata ttatcttaca atgaaaagga ntttatagat 420
cagccagtga acaacctttt cccaccatac aaaaattcct tttcccgaan gaaaanggct 480
ttctcaataa nctcacttt cttaanatct tacaagatag ccccganac ttatcgaaac 540
tcatttttagg caaatatgan ttttattgtt cgttacttgt ttcaaaattt ggtattgtga 600

```

atatcaatta ccacccccat ctcccatgaa anaaanggga aanggtgaan ttentaancg 660  
cttaaa 666

<210> 77  
<211> 396  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 31, 54, 125, 128, 136, 163, 168, 198  
<223> n = A,T,C or G

<400> 77  
ctgcagcccg ggggatccac taatctacca nggttatttg gcagctaatt ctanatttgg 60  
atcattgccc aaagttgcac ttgctgggtct cttgggattt ggccttggaa aggtatcata 120  
catanganta tgccanaata aattccattt ttttggaaaat canctccttg gggttggttt 180  
tggtccacag cataacangc actgcctcct tacctgtgag gaatgcaaaa taaagcatgg 240  
attaagtgag aaggggagact ctgagccttc agcttcctaa attctgtgtc tgtgactttc 300  
gaagtttttt aaacctctga atttgtacac atttaaaatt tcaagtgtac tttaaaataa 360  
aatacttcta atgggaacaa aaaaaaaaaa aaaaaa 396

<210> 78  
<211> 793  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 309, 492, 563, 657, 660, 703, 708, 710, 711, 732, 740, 748,  
758, 762, 765, 787  
<223> n = A,T,C or G

<400> 78  
gcacccctagc cgccgactca cacaaggcag gtgggtgagg aaatccagag ttgccatgga 60  
gaaaattcca gtgtcagcat tcttgctcct tgtggccctc tcttacctc tggccagaga 120  
taccacagtc aaacctggag ccaaaaagga cacaaggac tctcgacca aactgcccc 180  
gacctctccc agagggttggg gtgaccaact catctggact cagacatatg aagaagctct 240  
atataaatcc aagacaagca acaaaccctt gatgattatt catcacttgg atgagtggcc 300  
acacagtcna gcttttaaaga aagtgtttgc tgaaaataaa gaaatccaga aattggcaga 360  
gcagtttgtc ctctcaatc tggtttatga aacaactgac aaacaccttt ctctgatgg 420  
ccagtatgtc ccaggattat gtttggttgac ccattctctga cagttgaagc cgatatcctg 480  
ggaagatatt cnaaccgtct ctatgcttac aaactgcaga tacgctctgt tgcttgacac 540  
atgaaaaagc tctcaagttg ctnaaaatga attgtaagaa aaaaaatctc cagccttctg 600  
tctgtcggct tgaaaattga aaccagaaaa atgtgaaaaa tggctattgt ggaacanatn 660  
gacacctgat taggttttgg ttatgttcac cactattttt aanaaaanan nttttaaat 720  
ttggttcaat tntctttttn aaacaatntg tttctacntt gnganctgat ttctaaaaa 780  
aataatnttt ggc 793

<210> 79  
<211> 456  
<212> DNA  
<213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 89, 195, 255, 263, 266, 286, 353, 384, 423, 425, 436, 441  
 <223> n = A,T,C or G

<400> 79  
 actagtatgg ggtgggaggc cccacccttc tcccctaggc gctgttcttg ctccaaaggg 60  
 ctccgtggag agggactggc agagctgang ccacctgggg ctggggatcc cactcttctt 120  
 gcagctgttg agcgcaccta accactggtc atgccccac cctgctctc cgcacccgct 180  
 tcttcccgac cccangacca ggctacttct cccctcctct tgctccctc ctgcccctgc 240  
 tgccctctgat cgtangaatt gangantgtc ccgccttgtg gctganaatg gacagtggca 300  
 ggggctggaa atgggtgtgt gtgtgtgtgt gtgtgtgtgt gcnccccccc 360  
 tgcaagaccg agattgaggg aaancatgtc tgctgggtgt gaccatgttt cctctccata 420  
 aantnccccct gtgacnctca naaaaaaaaa aaaaaa 456

<210> 80  
 <211> 284  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 283  
 <223> n = A,T,C or G

<400> 80  
 ctttgtacct ctagaaaaga taggtattgt gtcatgaaac ttgagtttaa attttatata 60  
 taaaactaaa agtaatgctc acttttagcaa cacatactaa aattggaacc atactgagaa 120  
 gaatagcatg acctccgtgc aaacaggaca agcaaatgtg tgatgtgttg attaaaaaga 180  
 aataaataaa tgtgtatatg tgtaacttgt atgtttatgt ggaatacaga ttgggaaata 240  
 aaatgtatatt cttactgtga aaaaaaaaaa aaaaaaaaaa aana 284

<210> 81  
 <211> 671  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 388, 505, 600, 603, 615, 642, 644, 660  
 <223> n = A,T,C or G

<400> 81  
 gccaccaaca ttccaagcta ccttgggtac ctttgtgcag tagaagctag tgagcatgtg 60  
 agcaagcggt gtgcacacgg agactcatcg ttataattta ctatctgcca agagtagaaa 120  
 gaaaggctgg ggatatttgg gttggcttgg ttttgatttt ttgcttgttt gtttgttttg 180  
 tactaaaaa gattatctt ttgaatatcg tagggacata agtatataca tgttatocaa 240  
 tcaagatggc tagaatggtg cttttctgag tgtctaaaac ttgacacccc tggtaaattc 300  
 ttcaacacac ttccactgcc tgcgtaatga agttttgatt catttttaac cactggaatt 360  
 tttcaatgcc gtcattttca gttagatnat tttgcacttt gagattaaaa tgccatgtct 420  
 atttgattag tcttattttt ttatttttac aggcattatca gtctcactgt tggctgtcat 480  
 tgtgacaaaag tcaataaaac ccccnaggac aacacacagt atgggatcac atattgtttg 540  
 acattaagct ttggccaaaa aatgttgcag gtgttttacc tcgacttgct aaatcaatan 600  
 canaaaggct ggctnataat gttgggtggtg aaataattaa tnantaacca aaaaaaaaaa 660

aaaaaaaaaa a

671

```
<210> 82
<211> 217
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 35
<223> n = A,T,C or G
```

```
<400> 82
ctgcagatgt ttcttgaatg ctttgtcaaa ttaanaaagt taaagtgcaa taatgtttga 60
agacaataag tgggtgggtga tcttgtttct aataagataa acttttttgt ctttgcttta 120
tcttattagg gagtttgtatg tcagttgtata aaacataactg tgtggtataa caggcttaat 180
aaattcttta aaagqaaaaa aaaaaaaaaa aaaaaaaa 217
```

```
<210> 83
<211> 460
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 104, 118, 172, 401, 422, 423, 444, 449
<223> n = A,T,C or G
```

[illegible]

```
<210> 84
<211> 323
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 70, 138, 178, 197, 228, 242, 244, 287, 311
<223> n = A,T,C or G
```

<400>	84								
tgggtggatct	tggctctgtg	gagctgctgg	gacgggatct	aaaagactat	tctggaagct	60			
gtgggtccaan	gcatttttgc	ggcttaacgg	gtcccggaac	aaaggacacc	agctctctaa	120			
aattgaagtt	taccoganat	aacaatcttt	tgggcagaga	tgcctatttt	aacaaacncc	180			
gtccctgcgc	aacaacnaac	aatctctggg	aaataccggc	catgaacntg	ctgtctcaat	240			
cnancatctc	tctagctgac	cgatcatatc	gtcccagatt	actacanatc	ataataattg	300			



atttcctgta naaaaaaaaaaaa aaa

323

<210> 85

<211> 771

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 63, 426, 471, 497, 521, 554, 583, 586, 606, 609, 615, 652, 686, 691, 694, 695, 706, 713, 730, 732, 743, 751

<223> n = A,T,C or G

<400> 85

```
aaactgggta ctcaacactg agcagatctg ttctttgagc taaaaaccat gtgctgtacc 60
aanagtttgc tcctggctgc tttgatgtca gtgctgtctac tccacctctg cggcggaatca 120
gaagcaagca actttgactg ctgtcttggga tacacagacc gtattcttca tcctaaatctt 180
attgtgggct tcacacggca gctggccaat gaaggctgtg acatcaatgc tatcatcttt 240
cacacaaaga aaaagtgtgc tgtgtgcgca aatccaaaac agacttgggt gaaatatatt 300
gtgctgtctc tcagtaaaaa agtcaagaac atgtaaaaaac tgtggctttt ctggaatgga 360
attggacata gcccaagaac agaaagaact tgctggggtt ggaggtttca cttgcacatc 420
atgganggtt tagtgcttat cttatttctg cctcctggac ttgtccaatt natgaagtta 480
atcatattgc atcatanttt gctttgttta acatcacatt naaattaaac tgtattttat 540
gttattttata gctntaggtt ttctgtgttt aactttttat acnaantttc cttaaactatt 600
ttggtntant gcaanttaaa aattatattt ggggggggaa taaatatttg antttctgca 660
gccacaagct ttttttaaaa aaccantaca nccnngttaa atggtinggtc ccnaatggtt 720
tttgcttttn antagaaaat ttnttagaac natttgaaaa aaaaaaaaaa a 771
```

<210> 86

<211> 628

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 162, 249, 266, 348, 407, 427, 488, 518, 545, 566, 569, 597, 598, 611, 617, 621, 624

<223> n = A,T,C or G

<400> 86

```
actagtttgc ttacattttt tgaaaagtat tatttttgc caagtgccta tcaactaaac 60
cttgtgttag gtaagaatgg aatttattaa gtgaatcagt gtgacccttc ttgtcataag 120
attatcttaa agctgaagcc aaaatatgct tcaaaagaaa angactttat tgttcattgt 180
agttcataca ttcaaagcat ctgaactgta gtttctatag caagccaatt acatccataa 240
gtggagaang aaatagatta atgtcnaagt atgattgggt gagggagcaa ggttgaagat 300
aatctggggg tgaaattttc tagttttcat tctgtacatt tttagttnga catcagattt 360
gaaatattaa tgtttacctt tcaatgtgtg gtatcagctg gactcantaa cacccttttc 420
ttccctnggg gatggggaat ggattattgg aaaatggaaa gaaaaaagta cttaaagcct 480
tccttttnea gtttctggct cctaccctac tgatttancc agaataagaa aacatittat 540
catentctgc tttattccca ttaatnaant tttgatgaat aaatctgctt ttatgcnnac 600
ccaaggaatt nagtggnttc ntctttgt 628
```

<210> 87

<211> 518

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 384, 421, 486  
<223> n = A,T,C or G

<400> 87  
 ttttttatttt ttttttagaga gtagttcagc ttttattttat aaattttattg cctgtttttat 60  
 tataacaaca ttatactggtt tatggttttaa tacatatggt tcaaaatgta taatacatca 120  
 agtagtacag ttttaaaatt ttatgcttaa aacaagtttt gtgtaaaaaa tgcagatata 180  
 ttttacatgg caaatcaatt ttttaagtcac cctaaaaaatt gatttttttt tgaaatttaa 240  
 aaacacatttt aattttcaatt tctctcttat ataacccttta ttactatagc atgggtttcca 300  
 ctacagtttta acaatgcagc aaaattccca tttcacggta aattgggttt taagcggcaa 360  
 gggttaaaatg ctttgaggat cctnaatacc ctttgaaactt caaatgaagg ttatgggtgt 420  
 naatttaacc ctcatgccat aagcagaagc acaagttagt ctgcattttg ctctaaactg 480  
 taaaancgag cccccgttg aaaaagcaaa agggaccc 518

<210> 88  
<211> 1844  
<212> DNA  
<213> Homo sapiens

<400> 88  
 gagacagtga atcctagtat caaaggattt ttggcctcag aaaaagtgtg tgattatttt 60  
 tattttatttt tatttttcga gactccgtct caaaaaaaaa aaaaaaaaaa agaatcacaa 120  
 ggtatttgct aaagcatttt gagctgcttg gaaaaaggga agtagttgca gtagagtttc 180  
 ttccatcttc ttggtgctgg gaagccatat atgtgtcttt tactcaagct aaggggtata 240  
 agcttatgtg ttgaatttgc tacatctata tttcacatat tctcacaata agagaatttt 300  
 gaaatagaaa tatcatagaa catttaagaa agtttagtat aaataatatt ttgtgtgttt 360  
 taatcccttt gaagggatct atccaaagaa aatattttac actgagctcc ttctacacg 420  
 tctcagtaac agatcctgtg ttagtctttg aaaatagctc atttttttaa tgtcagttag 480  
 tagatgtagc atacatatga tgtataatga cgtgtattat gttaacaatg tctgcagatt 540  
 ttgttaggaat acaaaacatg gcctttttta taagcaaaac gggccaatga ctagaataac 600  
 acatagggca atctgtgaat atgtattata agcagcattc cagaaaagta gttggtgaaa 660  
 taattttcaa gtcaaaaagg gatatggaaa gggaattatg agtaacctct attttttaag 720  
 ccttgctttt aaattaaacg ctacagccat ttaagccttg aggataataa agcttgagag 780  
 taataatgtt aggttagcaa aggttttagat gtatcacttc atgcatgcta ccatgatagt 840  
 aatgcagctc ttcgagtcac ttctggtcat tcaagatatt cacccttttg cccatagaaa 900  
 gcaccctacc tcacctgctt actgacattg tcttagctga tcacaagatc attatcagcc 960  
 tccattatcc ctactgtat ataaaatata gagttttata ttttcctttc ttctgttttc 1020  
 accatatttc aaacctaaat ttgtttttgc agatggaatg caaagtaatc aagtgttcgt 1080  
 gctttcacct agaaggggtg ggtcctgaag gaaagaggtc cctaaatata cccaccctg 1140  
 ggtgctcttc cttccctggt accctgacta ccagaagtca ggtgctagag cagctggaga 1200  
 agtgcagcag cctgtgcttc cacagatggg ggtgctgctg caacaaggct ttcaatgtgc 1260  
 ccatcttagg ggggaaagct agatcctgtg cagcagcctg gtaagtcctg aggagggttc 1320  
 attgctcttc ctgctgctgt cctttgcttc tcaacggggc tcgctctaca gtctagagca 1380  
 catgcagcta acttgtgctt ctgcttatgc atgagggtta aattaacaac cataaccttc 1440  
 atttgaagtt caaaggtgta ttcaggatcc tcaaagcatt ttaaccttgc cgcttaaaac 1500  
 ccaatttacc gtgaaatggg aattttgctg cattgttaaa ctgtagtgga aaccatgcta 1560  
 tagtaataaa ggttatataa gagagaaatt gaaattaaat gtgtttttta atttcaaaaa 1620  
 aaaatcaatc tttaggatga cttaaaaatt gatttgccat gtaaaatgta tctgcatttt 1680  
 ttacacaaaa cttgttttaa gcataaaatt ttaaaaactg actacttgat gtattatata 1740

```

ttttgaacca tatgtattaa accataaaca gtataatggt gttataataa aacaggcaat 1800
aaattttataa ataaaagctg aaaaaaaaaa aaaaaaaaaa aaaa                1844

```

```

<210> 89
<211> 523
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 288, 352, 369, 398, 475, 511, 513
<223> n = A,T,C or G

```

```

<400> 89
tttttttttt tttttttagt caatccacat ttattgatca cttattatgt accaggcact 60
gggataaaga tgactgttag tcactcacag taaggaaaga aactagcaaa taagacgatt 120
acaatatgat gtagaaaatg ctaagccaga gatatagaaa ggctcatttg ggctccttctg 180
tcacctgtgc ttccacatc cctacccttc acaggccttc cctccagett cctgcccccg 240
ctccccactg cagatccctt gggattttgc ctagagctaa acgagganat gggccccctg 300
ggcctggcat gacttgaacc caaccacaga ctgggaaagg gagcctttcg anagtggatc 360
actttgatna gaaaacacat agggattga agagaaantc cccaaatggc caccctgtgc 420
ggtgctcaag aaaagtttgc agaattgata aatgaaggat caagggaatt aatanatgaa 480
taattgaatg gtggctcaat aagaatgact ncnttgaatg acc                    523

```

```

<210> 90
<211> 604
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 563
<223> n = A,T,C or G

```

```

<400> 90
ccagtgtggt ggaatgcaaa gattaccccg gaagctttcg agaagctggg attccctgca 60
gcaaaggaaa tagccaatat gtgtcgtttc tatgaaatga agccagaccg agatgtcaat 120
ctcaccacc aactaaatcc caaagtcaaa agcttcagcc agtttatctc agagaaccag 180
gggagccttc aaggggcatgt agaaaatcag ctgttcagat aggcctctgc accacacagc 240
ctctttcctc tctgatcctt ttctctttta cggcacaaca ttcatgtttg acagaacatg 300
ctggaatgca attgtttgca acaccgaagg atttccctgcg gtgcctctt cagtaggaag 360
cactgcattg gtgataggac acggtaatat gattcacatt taacttgcta gttagtata 420
aggggtggtg cacctgtttg gtaaaatgag aagcctcgga aacttgggag cttctctcct 480
accactaatg gggagggcag attattactg ggatttctcc tggggatgaat taatttcaag 540
ccctaattgc tgaaattccc ctnggcaggc tccagttttc tcaactgcat tgcaaaattc 600
cccc                                           604

```

```

<210> 91
<211> 858
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature

```

<222> 570, 591, 655, 664, 667, 683, 711, 759, 760, 765, 777, 787,  
792, 794, 801, 804, 809, 817, 820

<223> n = A,T,C or G

<400> 91

```

tttttttttt ttttttttta tgattattat ttttttttatt gatctttaca tcctcagtgt 60
tggcagagtt tctgatgctt aataaacatt tgttctgata agataagtgg aaaaaattgt 120
catttcctta ttcaagccat gcttttctgt gatattctga tcctagttga acatacagaa 180
ataaatgtct aaaacagcac ctcgattctc gtctataaca ggactaagtt cactgtgata 240
ttaaataagc ttggctaaaa tgggacatga gtggaggtag tcacacttca gcgaagaaag 300
agaatctcct gtataatctc accaggagat tcaacgaatt ccaccacact ggactagtgg 360
atcccccggg ctgcaggaat tcgatatcaa gcttatcgat accgtcgacc tcgagggggg 420
gcccggtaac caattcgccc tatagtgagt cgtattacgc gcgctcactg gcgctcgttt 480
tacaacgtcg tgactgggaa aaccctggcg ttacccaact taatcgccct gcagcacatc 540
cccccttcgc cagctggcgt aatagcgaan agcccgcacc gatcgccctt ncaacagttg 600
cgcagcctga atggcgaatg ggacgcgcc tgtagcggcg cattaaagcg cggcnggggtg 660
tggnggntcc cccacgtgac cgntacactt ggacgcgctt tacgcgggtc nttecgctttc 720
ttcccttctt ttctcgacac gtctcgccggg tttccccggn agctnttaat cgggggngctc 780
cctttanggg tncnaattaa nggnttacng gaccttngan cccaaaaact ttgattaggg 840
ggaaggtccc cgaagggg                                     858

```

<210> 92

<211> 585

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 317, 319, 320, 321, 325, 327, 328, 330, 331, 332, 460, 462,  
483, 485, 487, 523, 538, 566, 584

<223> n = A,T,C or G

<400> 92

```

gttgaatctc ctggtgagat tatacaggag attctctttc ttcgctgaag tgtgactacc 60
tccactcatg tcccatttta gccaaagctta tttaagatca cagtgaactt agtcctgtta 120
tagacgagaa tcgaggtgct gtttttagaca tttatttctg tatgttcaac taggatcaga 180
atatcacaga aaagcatggc ttgaataagg aaatgacaat tttttccact tatctgatca 240
gaacaaatgt ttattaagca tcagaaactc tgccaacact gaggatgtaa agatcaataa 300
aaaaaataat aatcatnann naaanannan nngaaggcg gccgccaccg cgggtggagct 360
ccagcttttg ttcccttttag tgagggttaa ttgcgcgctt ggcgttaatc atgggtcatag 420
ctgttttctg tgtgaaattg ttatccggct cacaattccn cncaacatac gagccgggaa 480
gentnangtg taaaagcctg ggggtgccta attgagtgag ctnaactcaca ttaattgngt 540
tgcgctccac ttgcccgtt ttccantccg ggaaacctgt tcgnc                                     585

```

<210> 93

<211> 567

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 82, 158, 230, 232, 253, 266, 267, 268, 269, 270, 271, 272,  
273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284,  
285, 286, 287, 295, 303, 307, 314, 349, 352, 354, 356, 366,

369, 379, 382, 386, 393, 404, 427, 428, 446, 450, 452

<223> n = A,T,C or G

<221> misc\_feature

<222> 453, 454, 459, 462, 480, 481, 483, 488, 493, 501, 509, 511,

512, 518, 520, 525, 526, 532, 541, 557

<223> n = A,T,C or G

<400> 93

```

cggcagtggt gctgtctgcg tgtccacctt ggaatctggc tgaactggct gggaggacca 60
agactgcggc tgggggtggc anggaaggga accgggggct gctgtgaagg atcttggaac 120
ttccctgtac ccaccttccc ctgtcttcac gtttgtanag gaaccttggt ccggccaagc 180
ccagtttcct tgtgtgatac actaatgtat ttgctttttt tgggaaatan anaaaaatca 240
attaaattgc tantgtttct ttgaannnnn nnnnnnnnnn nnnnnnnggg ggggncgccc 300
ccnccgngga aacnccccct tttgttccct ttaattgaaa ggttaattng cncnctggc 360
gttaancnt gggccaaanc tngttncccg tgntgaaatt gttnatcccc tcccaaatto 420
ccccccncc ttccaaaccc ggaaanccn annntgttna anccccgggg gttgcctaan 480
ngnaattnaa ccnaaccccc ntttaaattg nntttgcnch ccacnngccc cnccttccca 540
nttcggggaa aacctntcc gtgccc 567

```

<210> 94

<211> 620

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 169, 171, 222, 472, 528, 559, 599

<223> n = A,T,C or G

<400> 94

```

actagtcaaa aatgctaaaa taatttgga gaaaatattt ttaaagtagt gttatagttt 60
catgtttatc ttttattatg tttgtgaag ttgtgtctt tcaactaatta cctatactat 120
gccaatattt ctttatatct atccataaca ttatactac atttgtaana naatatgcac 180
gtgaaactta acactttata aggtaaaaat gaggtttcca anatttaata atctgatcaa 240
gttcttggtt tttccaaata gaatggactt ggtctgttaa gggctaagga gaagaggaag 300
ataagggtta aagttgttaa tgaccaaaca ttctaaaaga aatgcaaaaa aaaagtttat 360
tttcaagcct tcgaactatt taaggaaagc aaaatcattt cctaaatgca tatcatttgt 420
gagaatttct cattaatatc ctgaatcatt catttcacta aggctcatgt tnactccgat 480
atgtctctaa gaaagtacta tttcatggc caaacctggt tgccatantt gggtaaaggc 540
tttcccttaa gtgtgaaant atttaaaatg aaattttcct ctttttaaaa attctttana 600
agggttaagg gtgttgaggga 620

```

<210> 95

<211> 470

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 61, 67, 79, 89, 106, 213, 271, 281, 330, 354, 387, 432, 448

<223> n = A,T,C or G

<400> 95

```

ctcgaccttc tctgcacagc ggatgaaccc tgagcagctg aagaccagaa aagccactat 60
nactttntgc ttaattcang agcttacang attcttcaaa gagtgngtcc agcatccttt 120
gaaacatgag ttcttaccag cagaagcaga cctttacccc accacctcag cttcaacagc 180
agcaggtgaa acaacccatc cagcctccac ctnaggaaat atttggtccc acaaccaagg 240
agccatgcc a ctcaaagggt ccacaacctg naaacacaaa nattccagag ccaggctgta 300
ccaagggtccc tgagccaggg ctgtaccaan gtccctgagc caggttgtag caangtccct 360
gagccaggat gtaccaagggt ccctgancca ggttggtccaa ggtccctgag ccaggctaca 420
ccaagggcct gngccaggca gcacaaangt ccctgaccaa ggcttatcaa 470

```

<210> 96

<211> 660

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 299, 311, 360, 426, 538, 540, 542, 553, 563, 565, 592, 603, 604, 618, 633, 647, 649, 651, 653

<223> n = A,T,C or G

<400> 96

```

tttttttttt tttttttttt ggaattaaaa gcaatttaat gagggcagag caggaaacat 60
gcattttcttt tcattcgaat cttcagatga accctgagca gccgaagacc agaaaagcca 120
tgaagacttt ctgcttaatt caggggctta caggattctt cagagtgtgt gtgaacaaaa 180
gcttttatagt acgtattttt aggatacaaa taagagagag actatggctt ggggtgagaa 240
tgtactgatt acaagggtcta cagacaatta agacacagaa acagatggga agagggtgnc 300
cagcatctgg nggttggtct ctcaagggtt tgtctgtgca ccaaattact tctgcttggn 360
cttctgctga gctgggcttg gactgacctg tgaaggacat ggctctggta cctttgtgta 420
gctgncaca ggaactttgg tgtatccttg ctcaggaaact ttgatggcac ctggctcagg 480
aaacttgatg aagccttggg caagggacct tgatgcttgc tggctcaggg acctggngn 540
ancctgggct canggacctt tgnncncaacc ttggcttcaa gggacccttg gnacatcctg 600
gennagggac ccttgggncc aaccctgggc tttagggacc ctttggntnc nanccttggc 660

```

<210> 97

<211> 441

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 12, 308

<223> n = A,T,C or G

<400> 97

```

gggaccatac anagtattcc tctcttcaca ccaggaccag ccactgttgc agcatgagtt 60
cccagcagca gaagcagccc tgcatcccac ccctcagct tcagcagcag caggtgaaac 120
agccttgcca gctccacct caggaaccat gcaccccaa aaccaaggag ccttgccacc 180
ccaagggtgc tgagccctgc caccocaaag tgccctgagc ctgccagccc aagggtccag 240
agccatgcc cccaagggtg cctgagccct gcccttcaat agtcactcca gcaccagccc 300
agcagaanac caagcagaag taatgtggtc cacagccatg cccttgagga gccggccacc 360
agatgctgaa tccctatcc cattctgtgt atgagtccca tttgccttgc aattagcatt 420
ctgtctcccc caaaaaaaaa a

```

441

<210> 98  
 <211> 600  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 295, 349, 489, 496, 583  
 <223> n = A,T,C or G

<400> 98  
 gtattcctct cttcacacca ggaccagcca ctgttgcagc atgagttccc agcagcagaa 60  
 gcagccctgc atcccacccc ctcagcttca gcagcagcag gtgaaacagc cttgccagcc 120  
 tccacctcag gaaccatgca tccccaaaac caaggagccc tgccacccca aggtgcctga 180  
 gccctgccac cccaaagtgc ctgagccctg ccagcccagc gttccagagc catgccaccc 240  
 caaggtgcct gagccctgcc cttcaatagt cactccagca ccagcccagc agaanaccaa 300  
 gcagaagtaa tgtggtccac agccatgccc ttgaggagcc ggccaccana tgcctgaatcc 360  
 cctatcccat tctgtgtatg agtcccattt gccttgcaat tagcattctg tctcccccaa 420  
 aaaagaatgt gctatgaagc tttctttcct acacactctg agtctctgaa tgaagctgaa 480  
 ggtcttaant acaganctag ttttcagctg ctcagaattc tctgaagaaa agattttaaga 540  
 tgaaaggcaa atgattcagc tccttattac cccattaaat tcnctttcaa ttccaaaaaa 600

<210> 99  
 <211> 667  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 345, 562, 635  
 <223> n = A,T,C or G

<400> 99  
 actagtgact gagttcctgg caaagaaatt tgacctggac cagttgataa ctcatgtttt 60  
 accattttaa aaaatcagtg aaggatttga gctgctcaat tcaggacaaa gcattcgaac 120  
 ggtcctgacg ttttgagatc caaagtggca ggaggtctgt gttgtcatgg tgaactggag 180  
 tttctcttgt gagagttccc tcatctgaaa tcatgtatct gtctcacaaa tacaagcata 240  
 agtagaagat ttgttgaaga catagaacct ttataaagaa ttattaacct ttataaacat 300  
 ttaaagtctt gtgagcacct gggaattagt ataataacaa tgttnatatt tttgattttac 360  
 attttgtaag gctataattg tatcttttaa gaaaacatac cttggatttc tatgttgaaa 420  
 tggagatttt taagagtttt aaccagctgc tgcagatata ttactcaaaa cagatatagc 480  
 gtataaagat atagtaaagc catctcctag agtaatatc acttaacaca ttggaaacta 540  
 ttatttttta gatttgaata tnaatgttat tttttaaaca cttgttatga gttacttggg 600  
 attacatttt gaaatcagtt cattccatga tgcanaattac tgggattaga ttaagaaaga 660  
 cggaaaaa 667

<210> 100  
 <211> 583  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature





```

ggcagccttc caaaactcag gggctgaagc anactattag ggcaggggct gactttgggt 360
gacactgccc attccctctc agggcagctc angtcacccn ggncctcttg acccagcctg 420
ttcctttgaa aaagggcaaa actgaaaagg gcttttccta naaaaagaaa aaccagggaa 480
ctttgccagg gcttcnntnt taccaaaaacn ncttctcnng gatttttaat tccccattng 540
gcctccactt accnggggcn atgccccaaa attaanaatt tcccatc 587

```

```

<210> 103
<211> 496
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 2, 17, 66, 74, 82, 119, 164, 166, 172, 200, 203, 228, 232,
271, 273, 415, 423, 445, 446, 473
<223> n = A,T,C or G

```

```

<400> 103
anaggactgg ccctacntgc tctctctcgt cctacctatc aatgccaac atggcagaac 60
ctgcancctt tggncactgc anatggaaac ctctcagtgt cttgacatca cctaccct 120
gcggtgggtc tccaccacaa ccactttgac tctgtgtgcc ctgnanggtg gnttctcctg 180
actggcagga tggaccttan ccnacatata cctctgttcc ctctgctnag anaaagaatt 240
cccttaacat gatataatcc acccatgcaa ntngctactg gccagctac catttaccat 300
ttgcctacag aatttcattc agtctacact ttggcattct ctctggcgat agagtgtggc 360
tgggctgacc gcaaaagggtg ccttacacac tggccccac cctcaaccgt tgacncatca 420
gangcttgcc tctccttctt gattnncccc catgttggtat atcaggggtgc tcnagggatt 480
ggaaaagaaa caaac 496

```

```

<210> 104
<211> 575
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 18, 19, 45, 68, 77, 132, 155, 174, 219, 226, 238, 259, 263,
271, 273, 306, 323, 339, 363, 368, 370, 378, 381, 382, 436,
440, 449, 450, 456, 481, 485, 496, 503, 510, 512, 515, 528,
542, 552
<223> n = A,T,C or G

```

```

<400> 104
gcacctgctc tcaatccnnc tctcaccatg atcctccgcc tgcanaaaact cctctgccaa 60
ctatggangt ggttttnggg gtggctcttg ccaactggga agaagccgtg gtgtctctac 120
ctgttcaact cngtttgtgt ctgggggatc aactnggggc tatggaagcg gctnaactgt 180
tgttttggtg gaagggtctg taattggcct tgggaagtng cttatngaag ttggcctngg 240
gaagtgtcta ttgaaagtng ccntggaagt ngntttgggt gggggttttg ctggtggcct 300
ttgttnaatt tgggtgcttt gtnaatggcg gccccctcnc ctgggcaatg aaaaaaatca 360
ccnatgcngn aaacctenac nnaacagcct gggcttccct cacctcgaaa aaagtgtgctc 420
ccccccaaa aaaggncaan cccctcaann tggaangttg aaaaaatcct cgaatgggga 480
nccnnaaac aaaaancccc ccntttcccn gnaanggggg aaataccncc cccccactta 540
cnaaacccct tntaaaaaac cccccgggaa aaaaa 575

```

```

<210> 105

```

<211> 619  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 260, 527, 560, 564, 566, 585, 599  
 <223> n = A,T,C or G

<400> 105  
 cactagtagg atagaaacac tgtgtcccga gagtaaggag agaagctact attgattaga 60  
 gcctaaccga ggttaactgc aagaagaggc gggatacttt cagctttcca tgtaactgta 120  
 tgcataaagc caatgtagtc cagtttctaa gatcatgttc caagctaact gaatcccact 180  
 tcaatacaca ctcatgaact cctgatggaa caataacagg cccaagcctg tggatatgatg 240  
 tgcacacttg ctagactcan aaaaaatact actctcataa atgggtggga gtatttttgt 300  
 gacaacctac tttgcttggc tgagtgaagg aatgatattc atatattcat ttattccatg 360  
 gacatttagt tagtgctttt tatataccag gcatgatgct gagtgacact cttgtgtata 420  
 tttccaaatt tttgtacagt cgctgcacat atttgaaatc atatattaag acttccaaaa 480  
 aatgaagtcc ctgggttttc atggcaactt gatcagtaaa ggattcncct ctggtttggt 540  
 cttaaaacat ctactatatn gttnanatga aattcctttt ccccnctcc cgaaaaana 600  
 aagtgggtgg gaaaaaaaaa 619

<210> 106  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 8, 21, 31, 32, 58, 75, 89, 96, 99, 103, 122, 126, 147, 150,  
 158, 195, 210, 212, 219, 226, 246, 248, 249, 255, 258, 261,  
 263, 265, 275, 304, 317, 321, 331, 337, 340, 358, 371, 377,  
 380, 396, 450, 491  
 <223> n = A,T,C or G

<400> 106  
 cattggtnct ttcatttgct ntggaagtgt nnatctctaa cagtggacaa agttcccngt 60  
 gccttaaaact ctgtnacact tttgggaant gaaaanttng tantatgata ggttattctg 120  
 angtanagat gttctggata ccattanatn tgccccngt gtcagaggct catattgtgt 180  
 tatgtaaagt gtatntcatt cgctactatn antcaattng aaatanggtc tttgggttat 240  
 gaatantnng cagencanct nanangctgt ctgtngtatt cattgtggtc atagcacctc 300  
 acancattgt aacctcnatc nagtgagaca nactagnaan ttcctagtga tggctcanga 360  
 ttccaaatgg nctcatntcn aatgtttaaa agttanttaa gtgtaagaaa tacagactgg 420  
 atgttccacc aactagtacc tgtaatgacn ggctgtccc aacacatctc ccttttccat 480  
 gactgtggta nccogcatcg gaaaaa 506

<210> 107  
 <211> 452  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 289, 317, 378

<223> n = A,T,C or G

<400> 107

```
gttgagtctg tactaaacag taagatatct caatgaacca taaattcaac tttgtaaaaa 60
tcttttgaag catagataat attgtttggg aaatgtttct tttgtttggg aaatgtttct 120
tttaaagacc ctctatttct ataaaactct gcatgtagag gcttgtttac ctttctctct 180
ctaaggttta caataggagt ggtgatttga aaaatataaa attatgagat tggtttttct 240
gtggcataaa ttgcatcact gtatcatttt cttttttaac cggtaagant ttcagtttgt 300
tggaagtaa ctgtganaac ccagtttccc gtccatctcc cttagggact acccatagaa 360
catgaaaagg tccccacnga agcaagaaga taagtctttc atggctgctg gttgcttaaa 420
ccactttaaa accaaaaaat tccccttgga aa 452
```

<210> 108

<211> 502

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 22, 31, 126, 168, 183, 205, 219, 231, 236, 259, 283, 295,  
296, 298, 301, 340, 354, 378, 383, 409, 433, 446, 455, 466,  
488

<223> n = A,T,C or G

<400> 108

```
atcttcttcc cttaattagt tnttatttat ntattaaatt ttattgcatg tcttggcaaa 60
caaaaagaga ttgtagattg gcttctggct ccccaaaagc ccataacaga aagtaccaca 120
agaccncaac tgaagcttaa aaaatctatc acatgtataa tacctttnga agaacattaa 180
tanagcatat aaaactttta acatntgctt aatgttgn c aattataaaa ntaatngaaa 240
aaaatgtccc tttaacatnc aatatccac atagtgttat ttnaggggat taccnngnaa 300
naaaaaaagg gtagaaggga tttaatgaaa actctgcttn ccatttctgt ttanaaacgt 360
ctccagaaca aaaacttntc aantctttca gctaaccgca tttgagctna ggccactcaa 420
aaaactccatt agnccactt tctaanggtc tctanagctt actaancott ttgacccctt 480
accctggnta ctctgacct ca 502
```

<210> 109

<211> 1308

<212> DNA

<213> Homo sapiens

<400> 109

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accgagggtc tcgctaaaaat catcatggat tcacttggcg ccgtcagcac tcgacttggg 60
tttgatcttt tcaaagagct gaagaaaaca aatgatggca acatcttctt ttcccctgtg 120
ggcatcttga ctgcaatttg catggtcctc ctggggaccc gaggagccac cgcttcccag 180
ttggaggagg tgtttcactc tgaaaaagag acgaagagct caagaataaa ggctgaagaa 240
aaagaggtag ttgagaacac agaagcagta catcaacaat tccaaaagtt tttgactgaa 300
ataagcaaac tcaactaatga ttatgaactg aacataacca acaggctgtt tggagaaaaa 360
acatacctct tctttcaaaa atacttagat tatgttgaaa aatattatca tgcattctctg 420
gaacctgttg attttgtaaa tgcagccgat gaaagtcgaa agaagattaa ttcctgggtt 480
gaaagcaaaa caaatgaaaa aatcaaggac ttgttcccag atggctctat tagtagctct 540
accaagctgg tgctggtgaa catggtttat tttaaagggc aatgggacag ggagttaaag 600
aaagaaaata ctaaggaaga gaaatttttg atgaataaga gcacaagtaa atctgtacag 660
atgatgacac agagccattc ctttagcttc actttcctgg aggacttgca ggccaaaatt 720
ctagggattc catataaaaa caacgacctc agcatgtttg tgcttctgcc caacgacatc 780
```



Met Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser  
 305 310 315 320  
 Ser Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val  
 325 330 335  
 Ala Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly Ile Gly  
 340 345 350  
 Phe Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His  
 355 360 365  
 Pro Phe Leu Phe Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe  
 370 375 380  
 Phe Gly Arg Phe Ser Ser Pro  
 385 390

<210> 111  
 <211> 1419  
 <212> DNA  
 <213> Homo sapiens

<400> 111  
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 ccagccacca ccgtctctcc aaaaaccgga ggtctcgcta aaatcatcat ggattcactt 120  
 ggcgccgtca gcactcgact tgggtttgat cttttcaaag agctgaagaa aacaaatgat 180  
 ggcaacatct tcttttcccc tgtgggcctc ttgactgcaa ttggcatggg cctcctgggg 240  
 acccgaggag ccaccgcttc ccagttggag gaggtgtttc actctgaaaa agagacgaag 300  
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 attgagaaca cagaagcagt acatcaacaa ttccaaaagt ttttgactga aataagcaaa 420  
 ctcactaatg attatgaact gaacataacc aacaggctgt ttggagaaaa aacataacct 480  
 ttctttcaaa aatacttaga ttatgttgaa aaatattatc atgcatctct ggaacctgtt 540  
 gattttgtaa atgcagccga tgaaagtcga aagaagatta attcctgggt tgaaagcaaa 600  
 acaaattgaaa aaatcaagga cttgttccca gatggctcta ttagtagctc taccaagctg 660  
 gtgctggtga acatggttta ttttaaaggg caatgggaca gggagttaa gaaagaaaat 720  
 actaaggaag agaaattttg gatgaataag agcacagta aatctgtaca gatgatgaca 780  
 cagagccatt cctttagctt cactttcctg gaggacttgc aggccaaaat tctagggatt 840  
 ccatataaaa acaacgacct aagcatgttt gtgcttctgc ccaacgacat cgatggcctg 900  
 gagaagataa tagataaaat aagtcctgag aaattggtag agtggactag tccagggcat 960  
 atggaagaaa gaaaggtgaa tctgcacttg ccccggtttg aggtggagga cagttacgat 1020  
 ctagaggcgg tcttggtcgc catggggatg ggcgatgcct tcagtgaaca caaagccgac 1080  
 tactcgggaa tgtcgtcagg ctccgggttg tacgcccaga agttcctgca cagttccttt 1140  
 gtggcagtaa ctgaggaagg caccgaggct gcagctgcca ctggcatagg ctttactgtc 1200  
 acatccgccc caggtcatga aaatgttcac tgcaatcatc ccttcctgtt cttcatcagg 1260  
 cacaatgaat ccaacagcat cctcttcttc ggcagatttt cttctcctta agatgatcgt 1320  
 tgccatggca ttgctgcttt tagcaaaaaa caactaccag tgttactcat atgattatga 1380  
 aaatcgtcca ttcttttaaa tgggtggtca cttgcattt 1419

<210> 112  
 <211> 400  
 <212> PRT  
 <213> Homo sapiens

<400> 112  
 Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe  
 1 5 10 15  
 Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val



&lt;400&gt; 113

```

ctcgaccttc tctgcacagc ggatgaaccc tgagcagctg aagaccagaa aagccactat 60
gactttctgc ttaattcagg agcttacagg attcttcaaa gagtgtgtcc agcatccttt 120
gaaacatgag ttcttaccag cagaagcaga cctttacccc accacctcag cttcaacagc 180
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ccaaggtccc tgagccaggc tgtaccaagg tccctgagcc aggttgtagc aagggtccctg 360
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ccaaggtccc tgagccaggc agcatcaagg tccctgacca aggtttcctc aagtttctctg 480
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&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 114

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35      40      45
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Gly Phe Ile Lys Phe Pro Glu Pro Gly Ala Ile Lys Val Pro Glu Gln
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Gly Tyr Thr Lys Val Pro Val Pro Gly Tyr Thr Lys Val Pro Glu Pro
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Lys

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&lt;210&gt; 115

&lt;211&gt; 506

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

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<212> DNA

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&lt;211&gt; 6921

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 117

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```

<210> 119

<211> 8948

<212> DNA

<213> Homo sapiens

<400> 119

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```



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```

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```

```

<210> 120
<211> 587
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 91, 131, 256, 263, 332, 392, 400, 403, 461, 496, 497, 499,
510, 511, 518, 519, 539, 554, 560, 576
<223> n = A,T,C or G

```

```

<400> 120
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gggctgtgca ntccggtcag ggcgggaagg gaaatgcacc gctgcatgtg aacttacagc 180
ccaggcggat gcccttccc ttagcactac ctggcctcct gcacccctc gcctcatgtt 240
cctcccacct tcaanaaatg aanaaccca tgggccagc cccttgcctt ggggaaccaa 300
ggcagccttc caaaactcag gggctgaagc anactattag ggcaggggct gactttgggt 360
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ctttgccagg gcttcnntnt taccaaaacn ncttctcnn gatttttaat tccccattng 540
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```

```

<210> 121
<211> 619
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 260, 527, 560, 564, 566, 585, 599
<223> n = A,T,C or G

```

```

<400> 121
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tcaatacaca ctcatgaact cctgatggaa caataacagg cccaagcctg tggatgatg 240
tgcacacttg ctagactcan aaaaaatac actctcataa atgggtggga gtattttgg 300
gacaacctac tttgcttggc tgagtgaagg aatgatattc atatattcat ttattccatg 360
gacatttagt tagtgctttt tatataccag gcatgatgct gagtgcact cttgtgtata 420
tttccaaatt tttgtacagt cgctgcacat atttgaaatc atatattaag acttccaaaa 480
aatgaagtcc ctgggttttc atggcaactt gatcagtaaa ggattcncct ctgtttggta 540
cttaaaacat ctactatatn gttnanatga aattcctttt cccncctcc cgaaaaaana 600
aagtgggtgg gaaaaaaaaa                                     619

```

```

<210> 122
<211> 1475

```

<212> DNA  
<213> Homo sapiens

<400> 122

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tcgtgagcga ctccaaagge agcaatgaac ttcatcaagt tccatcgaac tgtgactgtc 180
taaattggagg aacatgtgtg tccaacaagt acttctccaa cattcaactgg tgcaactgcc 240
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atggtcactt ttaccgagga aaggccagca ctgacaccat gggccggccc tgccctgccct 360
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tcagcccttg ctgggtgatc agcgccacac actgcttcat tgattacca aagaaggagg 780
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catctccatc agctgtaaga agagactggg aagat 1475
```

<210> 123  
<211> 2294  
<212> DNA  
<213> Homo sapiens

<400> 123

```
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aaaggcagca atgaacttca tcaagttcca tcgaactgtg actgtctaaa tggaggaaaca 180
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cataattact gcaggaaccc agacaaccgg aggcgacctt ggtgctatgt gcaggtgggc 480
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```



```

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```

```

<210> 124
<211> 956
<212> DNA
<213> Homo sapiens

```

```

<400> 124
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cagattgaga acctcaagga ggagctggcc tacctgaaga agaaccacga ggaggagatg 180
aacgccctgc gaggccaggt ggggtggtgag atcaatgtgg agatggacgc tgccccaggc 240
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gccaccaaca gtgagctggg gcagagtggc aagagtgaga tctcggagct ccggcgacc 420
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```

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<210> 125
<211> 486
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 16
<223> n = A,T,C or G

```

&lt;400&gt; 125

```

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agcgcagggtt ttggatacta gagaaagtca tttgcttgta ctattgccat tttagaaagc 420
tctgatgtga attcaaattt tacctctgtt acttaaagcc aacaatttta aggcagtagt 480
tttact

```

&lt;210&gt; 126

&lt;211&gt; 3552

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 126

```

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<210> 127

<211> 754

<212> DNA

<213> Homo sapiens

<400> 127

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```

<210> 128

<211> 374

<212> DNA

<213> Homo sapiens

<400> 128

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ttcccctgcc cttggtaagt aactcttgat ggagaaagga ttaaagactc ttatttaacc 180

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<211> 2856  
<212> DNA  
<213> Homo sapiens

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<210> 136
<211> 356
<212> DNA
<213> Homo sapiens

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<400> 136
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tgaaggaaac tggaaccagc aagcacaccc tcccctcatt caccatgagc atcatgagga 300
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```

```

<210> 137
<211> 356
<212> DNA
<213> Homo sapiens

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<220>
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<223> n = A,T,C or G

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<400> 137
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cctttttctc aaagacatcg gcgaggtaat ttgtgccctt tttacctcgg ccgcgcacca 240
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```

<210> 138
<211> 353
<212> DNA
<213> Homo sapiens

```

```

<400> 138
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tacattgatg tggaaattgc tgctgtacc accacctcct gaagaggctt cctgatgcc 180
aatgccagcc atcttggcat cctggccctc gagcaggctg cggttaagtag cgatctcctg 240
ctccagccgt gtctttatgt caagcagcat cttgtactcc tggttctgag cctccatctc 300
gcacgcggagc tcaactcagc ctgcscgsg mssmcgctam gccgaattcc agc      353

```

```

<210> 139
<211> 371
<212> DNA
<213> Homo sapiens

```

```

<400> 139
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aggattggac ctgcccgggc ggccgctcga aagccgaatt ccagcacact ggccggccgtt 360
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```

<210> 140
<211> 370
<212> DNA

```

<213> Homo sapiens

<400> 140

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gcacactggc                                     370
```

<210> 141

<211> 371

<212> DNA

<213> Homo sapiens

<400> 141

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<210> 142

<211> 343

<212> DNA

<213> Homo sapiens

<400> 142

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tctttgggat gtgggcattc aaccacaga ggagaacttc atttgataga gcagttttga 300
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```

<210> 143

<211> 354

<212> DNA

<213> Homo sapiens

<400> 143

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cataaacatt ttacatgcag ctatttcaaa gtgtgttgga ttaattagga tcat                                     354
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<210> 144

<211> 353

<212> DNA

<213> Homo sapiens

<400> 144

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cctagagcac atctggatct cagccccacc cctggcaacc tgccctgccta gagaactccc 120
aagatgacag actaagtagg attctgccat ttagaataat tctggatatcc tgggcgttgc 180
gttaagttgc ttaactttca ttctgtctta cgatagtctt cagaggtggg aacagatgaa 240
gaaaccatgc cccagagaag gttaagtac ttctcttcta tggagccagt gttccaacct 300
aggtttgcc taccagac ctgtggcccc acctcccatg caggctctctg tgg 353

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<210> 145

<211> 371

<212> DNA

<213> Homo sapiens

<400> 145

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caggctctgtc ataaactggc ctggagtttc tgacgactcc ttgttcacca aatgcaccat 60
ttcttgagac ttgctggcct ctccgttgag tccacttggc tttctgtcct ccacagctcc 120
attgccactg ttgatcacta gctttttctt ctgcccacac cttcttcgac tgttgactgc 180
aatgcaaaact gcaagaatca aagccaaggc caagagggat gccaatgga tcagccattc 240
tggaatttgg ggtgtcctta taggaccaga ggttgtgttt gctccacctt cttgactccc 300
atgtgagacc tcggccgcga ccacgctaag ccgaattcca gcacactggc ggcccgttac 360
tagtggatcc g 371

```

<210> 146

<211> 355

<212> DNA

<213> Homo sapiens

<400> 146

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ggtcctccgt cctcttccca gaggtgtcgg ggcttggccc cagcctccat cttcgtctct 60
caggatggcg agtagcagcg gctccaaggc tgaattcatt gtcggagggg aatataaaact 120
ggtaagggaag atcgggtctg gctccttcgg ggacatctat ttggcgatca acatcaccaa 180
cggcgaggaa gtggcagtga agctagaatc tcagaaggcc aggcattccc agttgctgta 240
cgagagcaag ctctataaga ttcttcaagg tggggttggc atccccaca tacgggtgta 300
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<210> 147

<211> 355

<212> DNA

<213> Homo sapiens

<400> 147

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ggtctgttac aaaatgaaga cagacaacac aacatttact ctgtggagat atcctactca 60
tactatgcac gtgctgtgat ttgaaacata actcgtccca aaaacttgtc acgatcatcc 120
tgacttttta ggttggctga tccatcaatc ttgactcaa ctgttacttc tttcccagtg 180
ttgttaggag caaagctgac ctgaacagca accaatggct gtagataccc aacatgcagt 240
tttttcccat aatatgggaa atattttaag tctatcattc cattatgagg ataaactgct 300
acatttggtg tatcttcatt ctttgaaaca caatctatcc ttggcactcc ttcag 355

```

<210> 148

<211> 369

<212> DNA

<213> Homo sapiens





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tgaaactttg ggaaaacatg ttaatgacaa tattccagat ctttcagaaa tataacacat 3480
ttttttgcat gcatgcaaat gagctctgaa atcttcccat gcattctggg caagggctgt 3540
cattgcacat aagcttccat tttaatttta aagtgcacaaa gggccagcgt ggctctaaaa 3600
ggtaatgtgt ggattgcctc tgaaaagtgt gtatatattt tgtgtgaaat tgcatacttt 3660
gtattttgat tatttttttt ttcttcttgg gatagtggga tttccagaac cacacttgaa 3720
accttttttt atcgtttttg tattttcatg aaaataccat ttagtaagaa taccacatca 3780
aataagaaat aatgctacaa ttttaagagg ggagggaagg gaaagttttt ttttttatta 3840
tttttttaaa attttgtatg ttaaagagaa tgagtccttg atttcaaagt ttgtgtgtac 3900
ttaaatggta ataagcactg taaacttctg caacaagcat gcagctttgc aaaccatta 3960
aggggaagaa tgaaagctgt tccttggtcc tagtaagaag acaaactgct tcccttactt 4020
tgctgagggg ttgaataaac ctaggacttc cgagctatgt cagtactatt caggtaacac 4080
tagggccttg gaaatccctg tactgtgtct catggatttg gcactagcca aagcgaggca 4140
ccccttactg gcttacctcc tcatggcagc ctactctcct tgagtgtatg agtagccagg 4200
gtaaggggta aaaggatagt aagcatagaa accactagaa agtgggctta atggagttct 4260
tgtggcctca gctcaatgca gttagctgaa gaattgaaaa gtttttgttt ggagacgttt 4320
ataaacagaa atggaaagca gagttttcat taaatccttt tacctttttt ttttcttggg 4380
aatcccctaa aataacagta tgtgggatat tgaatgttaa agggatatatt ttttctatta 4440
tttttataat tgtacaaaat taagcaaag ttaaaagtgt tatatgcttt attaatgttt 4500
tcaaaaggta ttatacatgt gatacatttt ttaagcttca gttgcttgct ttctggtact 4560
ttctgttatg ggcttttggg gagccagaag ccaatctaca atctcttttt gtttgccagg 4620
acatgcaata aaatttaaaa aataaataaa aacta 4655

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<210> 152

<211> 586

<212> PRT

<213> Homo sapiens

<400> 152

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Met Leu Tyr Leu Glu Asn Asn Ala Gln Thr Gln Phe Ser Glu Pro Gln
 1           5           10          15
Tyr Thr Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn
 20          25          30
Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
 35          40          45
Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
 50          55          60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
 65          70          75          80
His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala
 85          90          95
Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
100         105         110
Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Gln Gly
115         120         125
Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr
130         135         140
Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn
145         150         155         160
Glu Gly Gln Ile Ala Pro Ser Ser His Leu Ile Arg Val Glu Gly Asn
165         170         175
Ser His Ala Gln Tyr Val Glu Asp Pro Ile Thr Gly Arg Gln Ser Val
180         185         190

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Leu Val Pro Tyr Glu Pro Pro Gln Val Gly Thr Glu Phe Thr Thr Val
    195                                200                205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
    210                                215                220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
    225                                230                235                240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
    245                                250                255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
    260                                265                270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Phe Arg Gln Asn Thr
    275                                280                285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
    290                                295                300
Glu Leu Val Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
    305                                310                315                320
Val Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Leu Gln His
    325                                330                335
Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln Gln His Gln His Leu
    340                                345                350
Leu Gln Lys Gln Thr Ser Ile Gln Ser Pro Ser Ser Tyr Gly Asn Ser
    355                                360                365
Ser Pro Pro Leu Asn Lys Met Asn Ser Met Asn Lys Leu Pro Ser Val
    370                                375                380
Ser Gln Leu Ile Asn Pro Gln Gln Arg Asn Ala Leu Thr Pro Thr Thr
    385                                390                395                400
Ile Pro Asp Gly Met Gly Ala Asn Ile Pro Met Met Gly Thr His Met
    405                                410                415
Pro Met Ala Gly Asp Met Asn Gly Leu Ser Pro Thr Gln Ala Leu Pro
    420                                425                430
Pro Pro Leu Ser Met Pro Ser Thr Ser His Cys Thr Pro Pro Pro Pro
    435                                440                445
Tyr Pro Thr Asp Cys Ser Ile Val Ser Phe Leu Ala Arg Leu Gly Cys
    450                                455                460
Ser Ser Cys Leu Asp Tyr Phe Thr Thr Gln Gly Leu Thr Thr Ile Tyr
    465                                470                475                480
Gln Ile Glu His Tyr Ser Met Asp Asp Leu Ala Ser Leu Lys Ile Pro
    485                                490                495
Glu Gln Phe Arg His Ala Ile Trp Lys Gly Ile Leu Asp His Arg Gln
    500                                505                510
Leu His Glu Phe Ser Ser Pro Ser His Leu Leu Arg Thr Pro Ser Ser
    515                                520                525
Ala Ser Thr Val Ser Val Gly Ser Ser Glu Thr Arg Gly Glu Arg Val
    530                                535                540
Ile Asp Ala Val Arg Phe Thr Leu Arg Gln Thr Ile Ser Phe Pro Pro
    545                                550                555                560
Arg Asp Glu Trp Asn Asp Phe Asn Phe Asp Met Asp Ala Arg Arg Asn
    565                                570                575
Lys Gln Gln Arg Ile Lys Glu Glu Gly Glu
    580                                585

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&lt;210&gt; 153

&lt;211&gt; 2007



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 153

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gaattcgtcg ctgctccagg gaaagttctg ttactccact gactctctct tttcctgata 60
acatggccag caagaaagta attacagtgt ttggagcaac aggagctcaa ggtggctctg 120
tggccagggc aatttttgag agcaaaaaat ttgcagtgag agcagtgacc agggatgtga 180
cttgaccaa tgccctggag ctccagcgcc ttggagctga ggtggtcaaa ggtgacctga 240
atgataaagc atcgggtggac agtgccctaa aaggtgtcta tggggccttc ttggtgacca 300
acttctggga ccctctcaac caagataagg aagtgtgtcg ggggaagctg gtggcagact 360
ccgccaagca cctgggtctg aagcacgtgg tgtacagcgg cctggagaac gtcaagcgac 420
tgacggatgg caagctggag gtgccgcact ttgacagcaa gggcgagggt gaggagtact 480
tctgggtccat tggcatcccc atgaccagtgt tccgcgtggc ggcctacttt gaaaactttc 540
tcgcggcggtg gcggcccgtg aaagcctctg atggagatta ctacaccttg gctgtaccga 600
tgggagatgt accaatggat ggtatctctg ttgctgatat tggagcagcc gtctctagca 660
tttttaattc tccagaggaa tttttaggca aggcgtggg gctcagtga gaagcaactaa 720
caatacagca atatgctgat gttttgtcca agcctttggg gaaagaagtc cgagatgcaa 780
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ccaaagtcaa aagcttcagc cagtttatct cagagaacca gggagccttc aagggcattgt 960
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catttatcca ttctgcaaac ttttcttgag caccagcacg ggtggccatt tgtggacttc 1620
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gtgagtgact aacagtcac tttatcccag tgccgtgtac ataataagtg atcaataaat 1980
gttgattgac taaaaaaaaa aaaaaaa 2007

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&lt;210&gt; 154

&lt;211&gt; 2148

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 154

```

gaattcgtcg ctgctccagg gaaagttctg ttactccact gactctctct tttcctgata 60
acatggccag caagaaagta attacagtgt ttggagcaac aggagctcaa ggtggctctg 120
tggccagggc aatttttgag agcaaaaaat ttgcagtgag agcagtgacc agggatgtga 180
cttgaccaa tgccctggag ctccagcgcc ttggagctga ggtggtcaaa ggtgacctga 240
atgataaagc atcgggtggac agtgccctaa aaggggaagc tgggtggcaga ctccgccaag 300
cacctgggtc tgaagcacgt ggtgtacagc ggctggaga acgtcaagcg actgacggat 360
ggcaagctgg aggtgccgca ctttgacagc aagggcgagg tggaggagta cttctgggtc 420
attggcatcc ccatgaccag tgtccgcgtg gcggcctact ttgaaaactt tctcgcggcg 480
tggcgggccc tgaaagcctc tgatggagat tactacacct tggctgtacc gatgggagat 540

```

```

gtaccaatgg atggtatctc tgttgctgat attggagcag ccgctctctag cattttttaat 600
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caatatgctg atgttttgtc caaggctttg gggaaagaag tccgagatgc aaagactatc 720
tgtgctatag atgaccagaa aacagtggaa gaagggttca tggagacgt gggcttgagt 780
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gtgatcaata aatgttgatt gactaaatga aaaaaaaaaa aaaaaaaa 2148

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<210> 155

<211> 153

<212> PRT

<213> Homo sapiens

<400> 155

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Met Thr Ser Val Arg Val Ala Ala Tyr Phe Glu Asn Phe Leu Ala Ala
 1           5           10          15
Trp Arg Pro Val Lys Ala Ser Asp Gly Asp Tyr Tyr Thr Leu Ala Val
 20          25          30
Pro Met Gly Asp Val Pro Met Asp Gly Ile Ser Val Ala Asp Ile Gly
 35          40          45
Ala Ala Val Ser Ser Ile Phe Asn Ser Pro Glu Glu Phe Leu Gly Lys
 50          55          60
Ala Val Gly Leu Ser Ala Glu Ala Leu Thr Ile Gln Gln Tyr Ala Asp
 65          70          75          80
Val Leu Ser Lys Ala Leu Gly Lys Glu Val Arg Asp Ala Lys Ile Thr
 85          90          95
Pro Glu Ala Phe Glu Lys Leu Gly Phe Pro Ala Ala Lys Glu Ile Ala
100         105         110
Asn Met Cys Arg Phe Tyr Glu Met Lys Pro Asp Arg Asp Val Asn Leu
115         120         125
Thr His Gln Leu Asn Pro Lys Val Lys Ser Phe Ser Gln Phe Ile Ser
130         135         140
Glu Asn Gln Gly Ala Phe Lys Gly Met
145         150

```

<210> 156  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 156  
 Met Thr Ser Val Arg Val Ala Ala Tyr Phe Glu Asn Phe Leu Ala Ala  
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 Trp Arg Pro Val Lys Ala Ser Asp Gly Asp Tyr Tyr Thr Leu Ala Val  
 20 25 30  
 Pro Met Gly Asp Val Pro Met Asp Gly Ile Ser Val Ala Asp Ile Gly  
 35 40 45  
 Ala Ala Val Ser Ser Ile Phe Asn Ser Pro Glu Glu Phe Leu Gly Lys  
 50 55 60  
 Ala Val Gly Leu Ser Ala Glu Ala Leu Thr Ile Gln Gln Tyr Ala Asp  
 65 70 75 80  
 Val Leu Ser Lys Ala Leu Gly Lys Glu Val Arg Asp Ala Lys Thr Ile  
 85 90 95  
 Cys Ala Ile Asp Asp Gln Lys Thr Val Glu Glu Gly Phe Met Glu Asp  
 100 105 110  
 Val Gly Leu Ser Trp Ser Leu Arg Glu His Asp His Val Ala Gly Ala  
 115 120 125

<210> 157  
 <211> 424  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 320, 322  
 <223> n = A,T,C or G

<400> 157  
 ctgcagcccg ggggatccac tagtccagtg tgggtggaatt cattggtcctt tacaagactt 60  
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 aattcagtca ccaactgttat attaccttct ccaggaaccc tccagtgggg aaggctgcga 180  
 tattagattt ccttgatatgc aaagtttttg ttgaaagctg tgctcagagg aggtgagagg 240  
 agaggaagga gaaaactgca tcataacttt acagaattga atctagagtc ttccccgaaa 300  
 agcccagaaa cttctctgcn gnatctggct tgtccatctg gtctaagggtg gctgcttctt 360  
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 tgct 424

<210> 158  
 <211> 2099  
 <212> DNA  
 <213> Homo sapiens

<400> 158  
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 ccgacagccg gcggcgcccc agcccagacct gcctgccag ccgagcgaa gggcgccgcc 120

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ccgcgcagag cccgcgccag gccgcgggc cgcagagcag ttaaaacgtg caggcaccag 180
aaggcacttc ctgtcgggtga agaagacctg tctccgggtg caccgggcac ctgtgttttg 240
caaacggggc tgacctccct tctggggag caggaagggt caggaagga aaagaagtac 300
agaagatctg gctaaacaat ttctgtatgg cgaaagaaaa attctaactt gtacgccctc 360
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aaggaggtct gaaacctcgc cagagggatc ttgccctcat tctttgggtc tgaaacactg 540
gcagtcgttg gaaacaggac tcagggataa accagcgcaa tggattgggg gacgctgcac 600
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tagttctgac tttgaattta tataaagtat ttttataatg actggtcttc cttacctgga 1800
aaaacatgcy atgttagttt tagaattaca ccacaagtat ctaaatttgg aacttacaaa 1860
gggtctatct tgtaaatatt gttttgcatt gtctgtggc aaatttgtga actgtcatga 1920
tacgcttaag gtggaagtgt ttcattgcac aatatatttt tactgctttc tgaatgtaga 1980
cggaacagtg tggaaagaga aggttttttt aactcatccg tttgccaatc attgcaaaaa 2040
actgaaatgt ggatgtgatt gcctcaataa agctcgtccc cattgcttaa aaaaaaaaaa 2099

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&lt;210&gt; 159

&lt;211&gt; 291

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 159

```

Met Asp Trp Gly Thr Leu His Thr Phe Ile Gly Gly Val Asn Lys His
 1          5          10          15
Ser Thr Ser Ile Gly Lys Val Trp Ile Thr Val Ile Phe Ile Phe Arg
 20          25          30
Val Met Ile Leu Val Val Ala Ala Gln Glu Val Trp Gly Asp Glu Gln
 35          40          45
Glu Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
 50          55          60
Tyr Asp His Phe Phe Pro Val Ser His Ile Arg Leu Trp Ala Leu Gln
 65          70          75          80
Leu Ile Phe Val Ser Thr Pro Ala Leu Leu Val Ala Met His Val Ala
 85          90          95
Tyr Tyr Arg His Glu Thr Thr Arg Lys Phe Arg Arg Gly Glu Lys Arg
100          105          110

```

Asn Asp Phe Lys Asp Ile Glu Asp Ile Lys Lys Gln Lys Val Arg Ile  
 115 120 125  
 Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser Ser Ile Phe Phe Arg Ile  
 130 135 140  
 Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Phe Leu Tyr Asn Gly  
 145 150 155 160  
 Tyr His Leu Pro Trp Val Leu Lys Cys Gly Ile Asp Pro Cys Pro Asn  
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&lt;211&gt; 943

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&lt;213&gt; Homo sapiens

&lt;400&gt; 161

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<212> PRT

<213> Homo sapiens

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Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile
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Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu
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Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly
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<212> PRT

<213> Homo sapiens

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 Phe Phe Val Pro Asp Ile Ser Asn Ser Asn Ser Met Ile Asp Ala Phe  
 465 470 475 480  
 Ser Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile Gln  
 485 490 495  
 Leu Glu Ser Thr Gly Glu Asn Val Lys Pro His His Gln Leu Lys Asn  
 500 505 510  
 Thr Val Thr Val Asp Asn Thr Val Gly Asn Asp Thr Met Phe Leu Val  
 515 520 525  
 Thr Trp Gln Ala Ser Gly Pro Pro Glu Ile Ile Leu Phe Asp Pro Asp  
 530 535 540  
 Gly Arg Lys Tyr Tyr Thr Asn Asn Phe Ile Thr Asn Leu Thr Phe Arg  
 545 550 555 560  
 Thr Ala Ser Leu Trp Ile Pro Gly Thr Ala Lys Pro Gly His Trp Thr  
 565 570 575  
 Tyr Thr Leu Met Cys Phe His His Ala Lys Leu Leu Thr Trp Lys Leu  
 580 585 590

<210> 170  
 <211> 791  
 <212> PRT  
 <213> Homo sapiens

<400> 170  
 Met Thr Gln Arg Ser Ile Ala Gly Pro Ile Cys Asn Leu Lys Phe Val  
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 Thr Leu Leu Val Ala Leu Ser Ser Glu Leu Pro Phe Leu Gly Ala Gly  
 20 25 30  
 Val Gln Leu Gln Asp Asn Gly Tyr Asn Gly Leu Leu Ile Ala Ile Asn  
 35 40 45  
 Pro Gln Val Pro Glu Asn Gln Asn Leu Ile Ser Asn Ile Lys Glu Met  
 50 55 60  
 Ile Thr Glu Ala Ser Phe Tyr Leu Phe Asn Ala Thr Lys Arg Arg Val  
 65 70 75 80  
 Phe Phe Arg Asn Ile Lys Ile Leu Ile Pro Ala Thr Trp Lys Ala Asn  
 85 90 95  
 Asn Asn Ser Lys Ile Lys Gln Glu Ser Tyr Glu Lys Ala Asn Val Ile  
 100 105 110  
 Val Thr Asp Trp Tyr Gly Ala His Gly Asp Asp Pro Tyr Thr Leu Gln  
 115 120 125  
 Tyr Arg Gly Cys Gly Lys Glu Gly Lys Tyr Ile His Phe Thr Pro Asn  
 130 135 140  
 Phe Leu Leu Asn Asp Asn Leu Thr Ala Gly Tyr Gly Ser Arg Gly Arg  
 145 150 155 160  
 Val Phe Val His Glu Trp Ala His Leu Arg Trp Gly Val Phe Asp Glu  
 165 170 175  
 Tyr Asn Asn Asp Lys Pro Phe Tyr Ile Asn Gly Gln Asn Gln Ile Lys  
 180 185 190  
 Val Thr Arg Cys Ser Ser Asp Ile Thr Gly Ile Phe Val Cys Glu Lys  
 195 200 205  
 Gly Pro Cys Pro Gln Glu Asn Cys Ile Ile Ser Lys Leu Phe Lys Glu  
 210 215 220





Leu Asp Asp Gly Ala Gly Ala Asp Val Ile Lys Asn Asp Gly Ile Tyr  
                   660                                  665                                  670  
 Ser Arg Tyr Phe Phe Ser Phe Ala Ala Asn Gly Arg Tyr Ser Leu Lys  
                   675                                  680                                  685  
 Val His Val Asn His Ser Pro Ser Ile Ser Thr Pro Ala His Ser Ile  
                   690                                  695                                  700  
 Pro Gly Ser His Ala Met Tyr Val Pro Gly Tyr Thr Ala Asn Gly Asn  
 705                                  710                                  715                                  720  
 Ile Gln Met Asn Ala Pro Arg Lys Ser Val Gly Arg Asn Glu Glu Glu  
                                   725                                  730                                  735  
 Arg Lys Trp Gly Phe Ser Arg Val Ser Ser Gly Gly Ser Phe Ser Val  
                   740                                  745                                  750  
 Leu Gly Val Pro Ala Gly Pro His Pro Asp Val Phe Pro Pro Cys Lys  
                   755                                  760                                  765  
 Ile Ile Asp Leu Glu Ala Val Asn Arg Arg Gly Ile Asp Pro Ile Leu  
                   770                                  775                                  780  
 Asp Ser Thr Trp Arg Arg Leu  
 785                                  790

&lt;210&gt; 171

&lt;211&gt; 1491

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 171

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tgagaagggtt tctctcacat ctagaaagaa gcgcttaaga tgtggcagcc cctcttcttc 180
aagtggctct tgtcctgttg ccttgggagt tctcaaattg ctgcagcagc ctccaccagc 240
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gactctcctg ggcgaccccg agagcttacc attcctcaga cttcttcaca tgggtgctaac 360
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agcaattccc atcgaccaga gttgggtccg ccagccttgg aaaggtcact gaaaaatctt 600
caattggact atgttgacct ctatcttatt cattttccag tgtctgtaaa gccagggtgag 660
gaagtgatcc caaaagatga aaatggaaaa atactatttg acacagtgga tctctgtgcc 720
acatgggagg ccatggagaa gtgtaaagat gcaggattgg ccaagtccat cgggggtgtcc 780
aacttcaacc acaggctgct ggagatgatc ctcaacaagc cagggtcaa gtacaagcct 840
gtctgcaacc aggtggaatg tcatccttac ttcaaccaga gaaaactgct ggatttctgc 900
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aagctacagc taagcccata ggccggaaaa gaaagacaat aattttgttt ttcattttga 1440
aaaaattaaa tgctctctcc taaagattct tcacctaaaa aaaaaaaaaa a 1491

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&lt;210&gt; 172

&lt;211&gt; 364

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 172

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Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly
 1          5          10          15
Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile
      20          25          30
Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp
      35          40          45
Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His
      50          55          60
Gly Ala Asn Arg Phe Val Pro Lys Ser Lys Ala Leu Glu Ala Val Lys
      65          70          75          80
Leu Ala Ile Glu Ala Gly Phe His His Ile Asp Ser Ala His Val Tyr
      85          90          95
Asn Asn Glu Glu Gln Val Gly Leu Ala Ile Arg Ser Lys Ile Ala Asp
      100          105          110
Gly Ser Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser
      115          120          125
Asn Ser His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Arg Ser Leu
      130          135          140
Lys Asn Leu Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Phe Pro
      145          150          155          160
Val Ser Val Lys Pro Gly Glu Glu Val Ile Pro Lys Asp Glu Asn Gly
      165          170          175
Lys Ile Leu Phe Asp Thr Val Asp Leu Cys Ala Thr Trp Glu Ala Met
      180          185          190
Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile Gly Val Ser Asn
      195          200          205
Phe Asn His Arg Leu Leu Glu Met Ile Leu Asn Lys Pro Gly Leu Lys
      210          215          220
Tyr Lys Pro Val Cys Asn Gln Val Glu Cys His Pro Tyr Phe Asn Gln
      225          230          235          240
Arg Lys Leu Leu Asp Phe Cys Lys Ser Lys Asp Ile Val Leu Val Ala
      245          250          255
Tyr Ser Ala Leu Gly Ser His Arg Glu Glu Pro Trp Val Asp Pro Asn
      260          265          270
Ser Pro Val Leu Leu Glu Asp Pro Val Leu Cys Ala Leu Ala Lys Lys
      275          280          285
His Lys Arg Thr Pro Ala Leu Ile Ala Leu Arg Tyr Gln Leu Gln Arg
      290          295          300
Gly Val Val Val Leu Ala Lys Ser Tyr Asn Glu Gln Arg Ile Arg Gln
      305          310          315          320
Asn Val Gln Val Phe Glu Phe Gln Leu Thr Ser Glu Glu Met Lys Ala
      325          330          335
Ile Asp Gly Leu Asn Arg Asn Val Arg Tyr Leu Thr Leu Asp Ile Phe
      340          345          350
Ala Gly Pro Pro Asn Tyr Pro Phe Ser Asp Glu Tyr
      355          360

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&lt;210&gt; 173

&lt;211&gt; 1988

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 173

```

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ccgcgcgcgc cgtcaacatg atccgctgcg gcctggcctg cgagcgctgc cgtcggatcc 180
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gcggcgccag cgggtcctac gaggagggtc gtcagagcct catggagtac gcgtggggta 360
gagcagcggc tgccatgctc ttctgtggct tcacatcctt ggtgatctgt ttcacccctc 420
ccttcttcgc cctctgtgga cccagatgc ttgtcttctt gagagtgatt ggaggctctc 480
ttgccttggc tgctgtgttc cagatcatct ccctggtaat ttaccccggt aagtacaccc 540
agaccttcac ccttcagtcg aaccctgctg tcacttacat ctataactgg gcctacggct 600
ttgggtgggc agccacgatt atcctgatcg gctgtgcctt cttctctctg tgccctccca 660
actacgaaga tgaccttctg ggcaatgcca agcccaggta cttctacaca tctgcctaac 720
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tctctgaata gcatatatat gatgcacggt ataggtcatt atgatttttt accatttcga 1860
cttacataat gaaaaccaat tcattttaaa tatcagatta ttattttgta agttgtggaa 1920
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aaaaaaaaa

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&lt;210&gt; 174

&lt;211&gt; 238

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 174

```

Gly Ala Ala Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala
 1             5             10             15
Arg Arg Pro Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro
      20             25             30
Leu Arg Ser Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg
      35             40             45
Cys Gly Leu Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu
      50             55             60
Leu Ser Ala Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp

```

65					70					75					80
Leu	Gln	Ser	Ser	Asp	His	Gly	Gln	Thr	Ser	Ser	Leu	Trp	Trp	Lys	Cys
				85					90					95	
Ser	Gln	Glu	Gly	Gly	Gly	Ser	Gly	Ser	Tyr	Glu	Glu	Gly	Cys	Gln	Ser
			100					105					110		
Leu	Met	Glu	Tyr	Ala	Trp	Gly	Arg	Ala	Ala	Ala	Ala	Met	Leu	Phe	Cys
		115				120						125			
Gly	Phe	Ile	Ile	Leu	Val	Ile	Cys	Phe	Ile	Leu	Ser	Phe	Phe	Ala	Leu
	130					135					140				
Cys	Gly	Pro	Gln	Met	Leu	Val	Phe	Leu	Arg	Val	Ile	Gly	Gly	Leu	Leu
145					150					155					160
Ala	Leu	Ala	Ala	Val	Phe	Gln	Ile	Ile	Ser	Leu	Val	Ile	Tyr	Pro	Val
				165					170					175	
Lys	Tyr	Thr	Gln	Thr	Phe	Thr	Leu	His	Ala	Asn	Pro	Ala	Val	Thr	Tyr
			180					185					190		
Ile	Tyr	Asn	Trp	Ala	Tyr	Gly	Phe	Gly	Trp	Ala	Ala	Thr	Ile	Ile	Leu
	195					200						205			
Ile	Gly	Cys	Ala	Phe	Phe	Phe	Cys	Cys	Leu	Pro	Asn	Tyr	Glu	Asp	Asp
	210					215					220				
Leu	Leu	Gly	Asn	Ala	Lys	Pro	Arg	Tyr	Phe	Tyr	Thr	Ser	Ala		
225					230						235				

&lt;210&gt; 175

&lt;211&gt; 4181

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 3347, 3502, 3506, 3520, 3538, 3549, 3646, 3940, 3968, 3974, 4036, 4056, 4062, 4080, 4088, 4115

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 175

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aatggccgcc cagcaaaacc ccttgacgca gcccgagggt cggcgggggc ttgggcagag 780
gggtctctca aggcaggggt ctccaggatc cgtatccaag cagaaaccat gtgatttgcc 840
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cattcggaac atcaccaaac agaccagtc taaaatcgat gtccaccgta aagaaaatgc 960
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taagtctatt ctggagatta tgcataagga agctcaagat ataaaattca cagaagagat 1080
ccccttgaag attttagctc ataataactt tggttgacgt cttatttgta aagaaggag 1140

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&lt;210&gt; 176

&lt;211&gt; 579

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 176

```

Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser
 1          5          10          15
Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
          20          25          30
Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
          35          40          45
Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
          50          55          60
Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
65          70          75          80
Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
          85          90          95
Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
          100          105          110
Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
          115          120          125
Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
          130          135          140
Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Met Ala Ala
145          150          155          160
Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
          165          170          175
Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
          180          185          190
Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly
          195          200          205
Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
          210          215          220
Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala
225          230          235          240
Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala
          245          250          255
Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys
          260          265          270
Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val
          275          280          285
Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln
          290          295          300
Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu
305          310          315          320
Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys
          325          330          335
Ala Lys Ala Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu
          340          345          350
Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu
          355          360          365
Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro
          370          375          380
Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe
385          390          395          400

```

```
<210> 177
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<210> 178
<211> 561
<212> DNA
<213> Homo sapiens
```

<400> 178						
acgcctttca	agggtgtacg	caaagcactc	attgataccc	ttttggatgg	ctatgaaaca	60
gcccgcctatg	ggacaggggt	ctttggccag	aatgagtacc	tacgctatca	ggaggccctg	120
agtgagctgg	ccactgcggt	taaagcacga	attgggagct	ctcagcgaca	tcaccagtca	180
gcagccaaag	acctaactca	gtcccctgag	gtctcccaa	caaccatcca	ggtgacatac	240
ctcccctcca	gtcagaagag	taaacgtgcc	aagcacttcc	ttgaattgaa	gagctttaag	300
gataactata	acacattgga	gagtactctg	tgacggagct	gaaggactct	tgccgtagat	360
taagccagtc	agttgcaatg	tgcaagacag	gctgcttgcc	gggccgccct	cggaacatct	420
ggcccagcag	gcccagactg	tatccatcca	agttcccggt	gtatccagag	ttcttagagc	480

```
<210> 179
<211> 521
<212> DNA
<213> Homo sapiens
```

```
<210> 180
<211> 417
<212> DNA
<213> Homo sapiens
```

```
<210> 181
<211> 283
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 35  
<223> n = A,T,C or G
```

```
<210> 182
<211> 401
<212> DNA
<213> Homo sapiens
```





<212> DNA

<213> Homo sapiens

<400> 186

```

gaaaggatgg ctctgggtgc cacagagctg ggacttcatg ttcttctaga gagggccaca 60
agagggccac aggggtggcc gggagtgtgc agctgatgcc tgctgagagg caggaattgt 120
gccagtgagt gacagtcacg agggagtgtc tcttcttggg gaggaaagaa ggtagagcct 180
ttctgtctga atgaaaggcc aaggctacag tacaggggcc cgcccagcc aggggtgttaa 240
tgcccacgta gtggaggcct ctggcagatc ctgcattcca aggtcactgg actgtacgtt 300
tttatgggt                                     309

```

<210> 187

<211> 477

<212> DNA

<213> Homo sapiens

<400> 187

```

ttcagtccta gcaagaagcg agaattctga gatcctccag aaagtcgagc agcaccacc 60
tccaacctcg ggccagtgtc ttcaggcttt actggggacc tgcgagctgg cctaattgtg 120
tggcctgcaa gccaggccat ccctggggcg cacagacgag ctccgagcca ggtcaggctt 180
cggaggccac aagctcagcc tcaggcccag gcactgattg tggcagaggg gccactacc 240
aaggtctagc taggcccag acctagttac ccagacagtg agaagcccct ggaaggcaga 300
aaagttggga gcatggcaga cagggaaggg aaacattttc agggaaaaga catgtatcac 360
atgtcttcag aagcaagtca ggtttcatgt aaccgagtgt cctcttgctg gtccaaaagt 420
agcccagggc tgtagcacag gtttcacagt gattttgtgt tcagccgtga gtcacac 477

```

<210> 188

<211> 220

<212> DNA

<213> Homo sapiens

<400> 188

```

taaatatggt agatattaat attcctctta gatgaccagt gattccaatt gtcccaagtt 60
ttaaataagt accctgtgag tatgagataa attagtgaca atcagaacaa gtttcagtat 120
cagatgttca agaggaagtt gctattgcat tgattttaat atttgtacat aaacactgat 180
ttttttgagc attattttgt atttgttgta cttaataacc 220

```

<210> 189

<211> 417

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 76, 77

<223> n = A,T,C or G

<400> 189

```

accatcttga cagaggatac atgctcccaa aacgtttgtt accacactta aaaatcactg 60
ccatcattaa gcacnnttt caaaattata gccattcatg atttactttt tccagatgac 120
tatcattatt ctagtctttt gaatttgtaa ggggaaaaaa aacaaaaaca aaaacttacg 180
atgcactttt ctccagcaca tcagatttca aattgaaaat taaagacatg ctatggtaat 240
gcacttgcta gtactacaca ctttgtacaa caaaaaacag aggcaagaaa caacggaaag 300
agaaaagcct tcctttgttg gcccttaaac tgagtcaaga tctgaaatgt agagatgatc 360

```



<400> 193

```
tccattgtgg tggaaattcgc tctctggtaa aggcgtgcag gtgttggccg cggcctctga 60
gctgggatga gccgtgctcc cgggtggaagc aaggagagcc agccggagcc atggccagta 120
cagtggtagc agttggactg accattgctg ctgcaggatt tgcaggccgt tacgttttgc 180
aagccatgaa gcatatggag cctcaagtaa aacaagtttt tcaaagccta ccaaaatctg 240
cettcagtgg tggctattat agagggtggg ttgaacccaa aatgacaaan cggaagcan 300
cattaatact aggtgtaagc cctactgcc aataaaggaa aataagagat gctcatcgac 360
gaattatgct tttaaatcat cctgacaaag gaggatctcc ttatatagca nccaaaatca 420
atgaagctaa agatttacta naaggtcaag ctaaaaaatg aagtaaattg atgatgaatt 480
ttaagttcgt attagtttat gtatatgagt actaagtttt tataataaaa tgcctcagag 540
ctacaatttt aaa 553
```

<210> 194

<211> 320

<212> DNA

<213> Homo sapiens

<400> 194

```
cccttcccaa tccatcagta aagaccccat ctgccttgct catgccgttt cccaacaggg 60
atgtcacttg atatgagaat ctcaaactc aatgccttat aagcattcct tctgtgtgct 120
attaagactc tgataattgt ctcccctcca taggaatttc tcccaggaaa gaaatatatc 180
cccatctccg tttcatatca gaactaccgt ccccgatatt cccttcagag agattaaaga 240
ccagaaaaaa gtgagcctct tcactctgcac ctgtaatatg ttcagtctct attttcttcc 300
attgacccat atttatacct 320
```

<210> 195

<211> 320

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 203, 218

<223> n = A,T,C or G

<400> 195

```
aagcatgacc tggggaaatg gtcagacctt gtattgtggt tttggccttg aaagtagcaa 60
gtgaccagaa tctgccatgg caacaggctt taaaaaagac ccttaaaaag acactgtctc 120
aactgtggtg ttagcaccag ccagctctct gtacatttgc tagctttag ttttctaaga 180
ctgagtaaac ttcttatttt tanaaagggg aggctggntt gtaactttcc ttgtacttaa 240
ttgggtaaaa gtcttttcca caaaccacca tctattttgt gaactttggt agtcatcttt 300
tatttggtaa attatgaact 320
```

<210> 196

<211> 357

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 36

<223> n = A,T,C or G

<400> 196

```
<210> 197
<211> 565
<212> DNA
<213> Homo sapiens
```

<400>	197						
tcagctgagt	accatcagga	tattttanccc	tttaagtgc	gttttgagg	tagaaaacta	60	
aagcaacaat	acttctctt	gacagctttg	attggaatgg	ggttattaga	tcattcacct	120	
tggctctaca	cttttttagga	tgcttggtga	acataacacc	acttataatg	aacatccctg	180	
gttctctatat	tttgggctat	gtgggtagga	attgttactt	gttactgcag	cagcagccct	240	
agaaagtaag	cccagggctt	cagatctaag	ttagtccaaa	agctaaatga	tttaaagtc	300	
agttgtaatg	ctaggcataa	gcactctata	atacattaaa	ttataggccg	agcaattagg	360	
gaatgtttct	gaaacattaa	acttgtat	atgtcactaa	aattctaaca	caaacttaaa	420	
aaatgtgtct	catacatatg	ctgtactagg	cttcacatg	catttctaaa	tttgtgtatg	480	
atttgaatat	atgaaagaat	ttatacaaga	gtgttattta	aaattattaa	aaataaatgt	540	
atataatttg	tacctattgt	aaaaa				565	

<400> 198						
tatgtaagta	ttgggtgtctg	ctttaaaaaa	ggagaccctg	acttcacctg	tcctttttta	60
acatttgaga	acagtgttac	tctgagcagt	tgggccacct	tcaccttata	cgacagctga	120
ctgttgatg	tgtccattgt	cgccagtttg	gctgttgccc	ggacaggaca	ggacctccat	180
tgggcgcagc	agcaggtggc	aggggtgtgg	cttgagggtg	gtggcagcgt	ctggtcctcc	240
tctctgggtc	tttctgagag	ggtctctaaa	gcagagtgtg	gttggcctgg	gggaaggcag	300
agcacgtatt	tctccctct	agtaacctct	catttgtag	tgttccctct	ggctttctga	360
agggcagcag	actcttgagt	atactgcaga	ggacatgctt	tatcagtagg	tcctgagggc	420
tccaggggct	caactgacca	agtaacacag	aagttgggg	atgtggccta	tttgggtcgg	480
aaac						484

```
<220>
<221> misc_feature
<222> 77, 88, 134, 151, 189, 227, 274, 319
<223> n = A,T,C or G
```

&lt;400&gt; 199

```

gcttatgttt tttgttttaa cttttgtttt ttaacattta gaatattaca ttttgtatta 60
tacagtacct ttctcanaca ttttgtanaa ttcatttcgg cagctcacta ggattttgct 120
gaacattaaa aagngtgata gcgatattag ngccaatcaa atggaaaaaa ggtagtctta 180
ataaacaana cacaacgttt ttataacaaca tactttaaaa tattaanaaa actccttaat 240
attgtttcct attaatgatt attctttggg caanattttc tgatgctttt gattttctct 300
caatttagca tttgctttng gtttttttct ctatttagca ttctgttaag gcacaaaaac 360
tatgtactgt atgggaaatg ttgtaaatat taccttttcc acatttttaa cagacaactt 420
tgaatccaa                                     429

```

&lt;210&gt; 200

&lt;211&gt; 279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 200

```

gcttttttga ggaattacag ggaagctcct ggaattgtac atggatatct ttatccctag 60
ggggaaatca aggagctggg caccctaat tctttatgga agtgttttaa actattttta 120
ttttattaca agtattacta gagtagtggt tctactctaa gatttcaaaa gtgcatttaa 180
aatcatacat gttcccgctt gcaaatatat tgttattttg gtggagaaaa aaatagtata 240
ttctacataa aaaattaaag atattaacta agaaaaaaa 279

```

&lt;210&gt; 201

&lt;211&gt; 569

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 201

```

taggtcagta tttttagaaa ctcttaatat ctcatactct tgataccaaa agcagccctg 60
attgttaaag cacacacctg cacaagaagc agtgatgggt gcatttacat ttcttgggtg 120
cacaaaaaaa aattctcaaa aagcaaggac ttacgttttt tgcaaagcct ttgagaagtt 180
actggatcat aggaagctta taacaagaat ggaagattct taaataactc actttctttg 240
gtatccagta acagtagatg ttcaaaatat gtagctgatt aataccagca ttgtgaacgc 300
tgtacaacct tgtggttatt actaagcaag ttactactag cttctgaaaa gtagcttcat 360
aattaatgtt atttatacac tgctttccat gacttttact ttgccctaag ctaatctcca 420
aaatctgaaa tgctactcca atatcagaaa aaaaggggga ggtggaatta tatttctctg 480
gattttaaga gtacagagaa tcatgcacat ctctgattag ttcatatatg tctagtgtgt 540
aataaaagtc aaagatgaac tctcaaaaa 569

```

&lt;210&gt; 202

&lt;211&gt; 501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 202

```

attaataggc ttaataattg ttggcaagga tccttttgct ttctttggca tgcaagctcc 60
tagcatctgg cagtggggcc aagaaaataa ggtttatgca tgtatgatgg ttttcttctt 120
gagcaacatg attgagaacc agtgtatgtc aacagggtgca tttgagataa ctttaaataa 180
tgtacctgtg tgggtctaagc tggaaatctg tcccttcca tccatgcaac aacttgttca 240
aattcttgac aatgaaatga agctcaatgt gcatatggat tcaatccac accatcgatc 300
atagcaccac ctatcagcac tgaaaactct tttgcattaa gggatcattg caagagcagc 360
gtgactgaca ttatgaaggc ctgtactgaa gacagcaagc tgtagtagca gaccagatgc 420
tttcttggca ggctcgttgt acctcttgga aaacctcaat gcaagatagt gtttcagtgc 480

```

tggcataatatt tggaattctg c

501

<210> 203  
<211> 261  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 36, 96  
<223> n = A,T,C or G

<400> 203  
gacaagctcc tggctcttgag atgtcttctc gttaangaga tgggcctttt ggaggtaaag 60  
gataaaatga atgagttctg tcatgattca ctattntata acttgcatga cctttactgt 120  
gttagctctt tgaatgttct tgaattttta gactttcttt gtaaacaat gatatgtcct 180  
tatcattgta taaaagctgt tatgtgcaac agtgtggaga ttccttgtct gatttaataa 240  
aataacttaaa cactgaaaaa a 261

<210> 204  
<211> 421  
<212> DNA  
<213> Homo sapiens

<400> 204  
agcatctttt ctacaacgtt aaaattgcag aagtagctta tcattaaaaa acaacaacaa 60  
caacaataac aataaatcct aagtgtaaat cagttattct accccctacc aaggatatca 120  
gcctgttttt tccctttttt ctccctggaa taattgtggg ctctctccca aatttctaca 180  
gcctctttcc tcttctcatg cttgagcttc cctgtttgca cgcattgcgtg tgcaggactg 240  
gcttgtgtgc ttggactcgg ctccaggtgg aagcatgctt tcccttggtta ctgttggaga 300  
aactcaaacc ttcaagccct aggtgtagcc attttgtcaa gtcacaaact gtatttttgt 360  
actggcatta acaaaaaaag aagataaaat attgtaccat taaactttta taaaacttta 420  
a 421

<210> 205  
<211> 460  
<212> DNA  
<213> Homo sapiens

<400> 205  
tactctcaca atgaaggacc tggaatgaaa aatctgtgtc taaacaagtc ctcttttagat 60  
tttagtgcaa atccagagcc agcgtcgggt gcctcgagta attctttcat gggtagcttt 120  
ggaaaagctc tcaggagacc tcacctagat gcctattcaa gctttggaca gccatcagat 180  
tgtagcccaa gagcctttta ttgaaaagct cattcttccc cagacttggc ctctgggtca 240  
gaggaagatg ggaaagaaa gacagatttt caggaagaaa atcacatttg taccttttaa 300  
cagacttttag aaaactacag gactccaaat tttagcttct atgacttggc cacatagact 360  
gaatgagacc aaaggaaaag cttaacatac tacctcaagg tgaactttta tttaaaagag 420  
agagaatctt atgtttttta aatggagtta tgaattttta 460

<210> 206  
<211> 481  
<212> DNA  
<213> Homo sapiens

gacaagctcc tggctcttgag atgtcttctc gttaangaga tgggcctttt ggaggtaaag 60  
gataaaatga atgagttctg tcatgattca ctattntata acttgcatga cctttactgt 120  
gttagctctt tgaatgttct tgaattttta gactttcttt gtaaacaat gatatgtcct 180  
tatcattgta taaaagctgt tatgtgcaac agtgtggaga ttccttgtct gatttaataa 240  
aataacttaaa cactgaaaaa a 261

&lt;400&gt; 206

```

tgtggtggaa ttcgggacgc cccagaccc tgactttttc ctgctgggc cgtctctcc 60
tgcggaagca gtgacctctg accctgggtg accttgcctt tgagtgcctt ttgaacgctg 120
gtcccgcggg acttggtttt ctcaagctct gtctgtccaa agacgctcog gtcgaggtcc 180
cgcctgccct ggggtggatac ttgaaccca gacgcccctc tgtgtgtgtg tgtccggagg 240
cggccttccc atctgcctgc ccaccggag ctctttccgc cggcgagggg tcccaagccc 300
acctcccgcc ctacgtcctg cgggtgtcgt ctgggcaagt cctgcacaca caatgcaagt 360
cctggcctcc gcgcccgcgc gccacgcga gccgtaccog ccgccaaactc tgttatttat 420
ggtgtgaccc cctggaggtg cctcggccc accggggcta tttattgttt aatttatttg 480
t 481

```

&lt;210&gt; 207

&lt;211&gt; 605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 207

```

accctttttg gattcagggc tcctcacaat taaaatgagt gtaatgaaac aaggtgaaaa 60
tatagaagca tccctttgta tactgttttg ctacttacag tgtacttggc attgctttat 120
ctcactggat tctcacggta ggatttctga gatcttaatc taagctccaa agttgtctac 180
ttttttgatc ctagggtgct ccttttgttt tacagagcag ggtcacttga tttgctagct 240
ggtggcagaa ttggcaccat taccaggtc tgactgacca ccagtcagag gcactttatt 300
tgtatcatga aatgatttga aatcattgta aagcagcgaa gtctgataat gaatgccagc 360
tttccttgtg ctttgataac aaagactcca aatattctgg agaacctgga taaaagtttg 420
aagggtcaga ttgggatttg aagacaaaat tgtaggaaat cttacatttt tgcaataaca 480
aacattaatg aaagcaaaac attataaaag taattttaat tcaccacata cttatcaatt 540
tcttgatgct tccaaatgac atctaccaga tatggttttg tggacatctt tttctgttta 600
cataa 605

```

&lt;210&gt; 208

&lt;211&gt; 655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 208

```

ggcgttggtc tggattcccg tcgtaactta aagggaaact ttcacaatgt ccggagccct 60
tgatgtcctg caaatgaagg aggaggatgt ccttaagttc cttgcagcag gaaccactt 120
aggtggcacc aatcttgact tccagatgga acagtacatc tataaaagga aaagtgatgg 180
catctatatc ataaatctca agaggacctg ggagaagctt ctgctggcag ctgctgcaat 240
tgttgccatt gaaaaccctg ctgatgtcag tgttatatcc tccaggaata ctggccagag 300
ggctgtgtctg aagtttgctg ctgccactgg agccactcca attgctggcc gcttcaactcc 360
tggaaccttc actaaccaga tccaggcagc ctccggggag ccacggcttc ttgtggttac 420
tgaccccgag gctgaccacc agcctctcac ggaggcatct tatgttaacc tacctaccat 480
tgcgctgtgt aacacagatt ctctctgcg ctatgtggac attgccatcc catgcaacaa 540
caagggagct cactcagtgg gtttgatgtg gtggatgctg gtcgggaag ttctgcgcac 600
gcgtggcacc atttcccgctg aacacccatg ggaggtcatg cctgatctgt acttc 655

```

&lt;210&gt; 209

&lt;211&gt; 621

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 209

```

catttagaac atggttatca tccaagacta ctctaccctg caacattgaa ctcccaagag 60

```



```
<210> 210
<211> 533
<212> DNA
<213> Homo sapiens
```

<400>	210						
cgcttgggg	agccggcggn	ngagtccggg	acgtggagac	ccgggggtccc	ggcagccggg	60	
nggcccgcg	gccaggggtg	gggatgcacc	gccgcggggt	gggagctggc	gccatcgcca	120	
agaagaaact	tgcagaggcc	aagtataagg	agcgaggggac	ggtcttgggt	gaggaccagc	180	
tagcccagat	gtcaaagcag	ttggacatgt	tcaagaccaa	cctggaggaa	tttgccagca	240	
aacacaagca	ggagatccgg	aagaatcctg	agttccgtgt	gcagttccag	gacatgtgtg	300	
caaccattgg	cgtggatccg	ctggcctctg	gaaaaggatt	ttggtctgag	atgctgggcg	360	
tgggggactt	ctattacgaa	ctaggtgtcc	aaattatcga	agtgtgcctg	gcgctgaagc	420	
atcggaatgg	aggttctgata	actttggagg	aactacatca	acaggtgttg	aagggaaggg	480	
gcaagttcgc	ccaggatgtc	agtcaaatg	acctgatcag	agccatcaag	aaa	533	

```
<210> 211
<211> 451
<212> DNA
<213> Homo sapiens
```

```

<400> 211
ttagcttgag ccgagaacga ggcgagaaag ctggagaccg aggagaccgc ctagagcgga 60
gtgaacgggg aggggaccgt ggggaccggc ttgatcgtgc gcggacacct gctaccaagc 120
ggagcttcag caaggaaagt gaggagcgga gtagagaacg gccctcccag cctgaggggc 180
tgcgcaaggc agctagcctc acggaggatc gggaccgtgg gcgggatgcc gtgaagcgag 240
aagctgccct acccccagtg agccccctga aggcggctct ctctgaggag gagttagaga 300
agaaatccaa ggctatcatt gaggaatatc tccatctcaa tgacatgaaa gaggcagtcc 360
agtgcgtgca ggagctggcc tcacctcct tgccttctcat ctttgtacgg catggtgtcg 420
agtctacgct qgagcgcagt gccattgctc g
451

```

```
<210> 212
<211> 471
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc feature
```

<222> 54

<223> n = A,T,C or G

<400> 212

```
gtgattattc ttgatcaggg agaagatcat ttagatttgt tttgcattcc ttanaatgga 60
gggcaacatt ccacagctgc cctggctgtg atgagtgtcc ttgcaggggc cggagtagga 120
gcaactgggt gggggcgga ttgggggttac tcatgttaag ggattccctg ttgttgtgtt 180
gagatccagt gcagttgtga tttctgtgga tcccagcttg gttccaggaa ttttgtgtga 240
ttggcttaaa tccagttttc aatcttcgac agctgggctg gaacgtgaac tcagtagctg 300
aacctgtctg acccggtcac gttcttgat cctcagaact ctttgtctt gtcgggggtg 360
gggtgggaac tcacgtgggg agcgggtggc gagaaaatgt aaggattctg gaatacatat 420
tccatgggac tttccttccc tctctgctt cctcttttcc tgctccctaa c 471
```

<210> 213

<211> 511

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 27, 63, 337, 442

<223> n = A,T,C or G

<400> 213

```
ctaattagaa acttgctgta cttttnttt tcttttaggg gtcaaggacc ctctttatag 60
ctnccatttg cctacaataa attattgcag cagtttgcaa tactaaaata ttttttatag 120
actttatatt tttccttttg ataaagggat gctgcatagt agagttagtg taattaaact 180
atctcagccg tttccctgct ttccttctg ctccatatgc ctcatgtcc ttccaggag 240
ctcttttaat cttaaagttc tacatttcac gctcttagtc aaattctgtt accttttta 300
taactcttcc cactgcata ttcactcttg aattggnggt tctaaattct gaaactgtag 360
ttgagataca gctatttaat atttctggga gatgtgcac cctcttctt gtggttgccc 420
aaggttgttt tgcgtaactg anactccttg atatgcttca gagaatttag gcaaacactg 480
gccatggccg tgggagtact gggagtaaaa t 511
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<210> 214

<211> 521

<212> DNA

<213> Homo sapiens

<400> 214

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agcattgcc aataatccct aattttccac taaaaatata atgaaatgat gttaagcttt 60
ttgaaaagtt taggttaaac ctactgttgt tagattaatg tatttgttgc ttccctttat 120
ctggaatgtg gcattagctt ttttatttta accctcttta attcttattc aattccatga 180
cttaagggtg gagagctaaa cactgggatt tttggataac agactgacag ttttgcataa 240
ttataatcgg cattgtacat agaaaggata tggctacctt ttgttaaata tgcactttct 300
aaatatcaaa aaagggaaat gaagtataaa tcaatttttg tataatctgt ttgaaacatg 360
agtttttatt gcttaatat agggctttgc ccttttctg taagtctctt gggatcctgt 420
gtagaagctg ttctcattaa acaccaaaca gttaagtcca ttctctggta ctagctacaa 480
attcggtttc atattctact taacaattta aataaactga a 521
```

<210> 215

<211> 381

<212> DNA

<213> Homo sapiens

<220>  
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 <222> 17, 20, 60, 61, 365  
 <223> n = A,T,C or G

<400> 215  
 gagcggagag cggaccngtn agagccctga gcagccccac cgccgcgcgc ggccctagttn 60  
 ncatcacacc ccgggaggag ccgcagctgc cgcagccggc cccagtcacc atcaccgcaa 120  
 ccatgagcag cgaggccgag acccagcagc cgcccgccgc cccccccgc gcccccgcgc 180  
 tcagcgccgc cgacaccaag cccggcacta cgggcagcgg cgcagggagc ggtggcccg 240  
 gcggcctcac atcggcggcg cctgccggcg gggacaagaa ggatcatgca acgaagggtt 300  
 tgggaacagt aaaatgggtc aatgtaagga acggatatgg ttcatcaac aggaatgaca 360  
 ccaangaaga tgtatttgta c 381

<210> 216  
 <211> 425  
 <212> DNA  
 <213> Homo sapiens

<400> 216  
 ttactaacta ggatcattcaa ggaagtcaag ttaacttaaa catgtcacct aaatgcactt 60  
 gatgggtgttg aaatgtccac cttcttaaat ttttaagatg aacttagttc taaagaagat 120  
 aacaggccaa tcctgaaggt actccctgtt tgctgcagaa tgatcatat tttggatgtt 180  
 gcataagagt cctatttgcc ccagttaatt caactttgt ctgctgttt tgtggactgg 240  
 ctggctctgt tagaactctg tccaaaaagt gcatggaata taacttgtaa agcttccac 300  
 aattgacaat atatatgcat gtgttttaaac caaatccaga aagcttaaac aatagagctg 360  
 cataatagta ttatttaaag aatcacaact gtaaacatga gaataactta aggattctag 420  
 tttag 425

<210> 217  
 <211> 181  
 <212> DNA  
 <213> Homo sapiens

<400> 217  
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 cttctcctt cttctgggtg tacagctcca agggccctc accttcatgt ctgaaatgga 120  
 actttggctt tttcagtga agaatatgt gaaggtttca tttgttcta gaaaaaaaaa 180  
 a 181

<210> 218  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 218  
 caggccttcc agttcactga caaacatggg gaagtgtgcc cagctggctg gaaacctggc 60  
 agtgatacca tcaagcctga tgtccaaaag agcaaagaat atttctccaa gcagaagtga 120  
 gcgctgggct gtttttagtg caggctgcgg tgggcagcca tgagaacaaa acctcttctg 180  
 tattttttt ttccattagt aaaacacaag acttcagatt cagccgaatt gtggtgtctt 240  
 acaaggcagg cttttcctac aggggttgga gagaccagc tttcttctt tggtaggaat 300  
 ggcctgagtt ggcgttgtgg gcaggctact ggtttgtat atgtattagt agagcaaccc 360  
 attaattctt ttagtattgt attaaactg aactgagaaa aaaaa 405

<210> 219  
 <211> 216  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 207, 210  
 <223> n = A,T,C or G

<400> 219  
 actccaagag ttagggcagc agagtggagc gatttagaaa gaacatttta aaacaatcag 60  
 ttaatttacc atgtaaaatt gctgtaaatg ataatgtgta cagattttct gttcaaatat 120  
 tcaattgtaa acttcttggt aagactgtta cgtttctatt gcttttgtat gggatattgc 180  
 aaaaataaaa aggaaagaac cctcttnaan aaaaaa 216

<210> 220  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 220  
 cttacaaatt gcccccatgt gtaggggaca cagaaccctt tgagaaaact tagatttttg 60  
 tctgtacaaa gtctttgcct ttttccttct tcattttttt ccagtacatt aaatttgtca 120  
 atttcatctt tgagggaaac tgattagatg ggttggtgtt gtgttctgat ggagaaaaaca 180  
 gcaccccaag gactcagaag atgattttta cagttcagaa cagatgtgtg caatattggg 240  
 gcatgtaata atgttgagtg gcagtcacaaa gtcattgatt ttatcttagt tcttcattac 300  
 tgcattgaaa aggaaaacct gtctgagaaa atgcctgaca gtttaattta aaactatggg 360  
 gtaagtcctt gacaaaaaaa 380

<210> 221  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

<400> 221  
 ggtagtagta ctgtcgactt tgtaaaaaag ttaaaaatga aaaaaaaagg aaaaatgaat 60  
 tgtatatatta atgaatgaac atgtacaatt tgccactggg aggaggttcc tttttgttgg 120  
 gtgagtcctgc aagtgaattt cactgatgtt gatattcatt gtgtgtagtt ttatttcggg 180  
 cccagccccg tttcctttta ttttgagact aatgccagct gcgtgtctag ttttgagtgc 240  
 agtaaaaatag aatcagcaaa tcaactctat ttttcactct tttccgggtat tttttgggtt 300  
 gtttctgttg gagcagtgtg caccaactct tctgtatat tgcctttttg ctggaaaatg 360  
 ttgtatgttg aataaaattt tctataaaaa ttaaaaaa 398

<210> 222  
 <211> 301  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 49, 64  
 <223> n = A,T,C or G

112

&lt;400&gt; 222

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taanaacttg aaacttgtaa actgagatgt ctgtagcttt tttgcccac tgtagtgtat 120
gtgaagattt caaacctga gagcactttt tctttgttta gaattatgag aaaggcacta 180
gatgacttta ggatttgcac ttttcccttt attgcctcat ttcttgtgac gccttgttgg 240
ggagggaaat ctgtttattt tttcctacaa ataaaaagct aagattctat atcgcaaaaa 300
a                                                                 301

```

&lt;210&gt; 223

&lt;211&gt; 200

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 223

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gtaagtgtt aggaagaaac tttgcaaaca tttaatgagg atacactgtt cattttttaa 60
attccttcac actgtaattt aatgtgtttt atattctttt gtagtaaaac aacataactc 120
agattttctac aggagacagt ggttttattt ggattgtctt ctgtaatagg tttcaataaa 180
gctggatgaa cttaaaaaaa                                     200

```

&lt;210&gt; 224

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 224

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gaaaggtttg atccggactc aaagaaagca aaggagtgtg agccgccatc tgctggagca 60
gctgtaactg caagacctgg acaagagatt cgtcagcgaa ctgcagctca aagaaacctt 120
tctccaacac cagcaagccc taaccagggc cctcctccac aagttccagt atctcctgga 180
ccaccaaaag acagttctgc ccttgggtga cccccagaaa ggactgttac tocagcccta 240
tcataaaatg tgttaccaag acatcttgga tcccctgcta cttcagtgcc tggaatgggt 300
aaacagagca cttaatgtta tttacagttt atattgtttt ctctgggttac caataaaacg 360
ggccattttc aggtggtaaa aaaaaa                                     385

```

&lt;210&gt; 225

&lt;211&gt; 560

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 225

```

Met Glu Cys Leu Tyr Tyr Phe Leu Gly Phe Leu Leu Leu Ala Ala Arg
 1          5          10          15
Leu Pro Leu Asp Ala Ala Lys Arg Phe His Asp Val Leu Gly Asn Glu
 20          25          30
Arg Pro Ser Ala Tyr Met Arg Glu His Asn Gln Leu Asn Gly Trp Ser
 35          40          45
Ser Asp Glu Asn Asp Trp Asn Glu Lys Leu Tyr Pro Val Trp Lys Arg
 50          55          60
Gly Asp Met Arg Trp Lys Asn Ser Trp Lys Gly Gly Arg Val Gln Ala
 65          70          75          80
Val Leu Thr Ser Asp Ser Pro Ala Leu Val Gly Ser Asn Ile Thr Phe
 85          90          95
Ala Val Asn Leu Ile Phe Pro Arg Cys Gln Lys Glu Asp Ala Asn Gly
100          105          110

```

Asn	Ile	Val	Tyr	Glu	Lys	Asn	Cys	Arg	Asn	Glu	Ala	Gly	Leu	Ser	Ala		
	115						120					125					
Asp	Pro	Tyr	Val	Tyr	Asn	Trp	Thr	Ala	Trp	Ser	Glu	Asp	Ser	Asp	Gly		
	130					135					140						
Glu	Asn	Gly	Thr	Gly	Gln	Ser	His	His	Asn	Val	Phe	Pro	Asp	Gly	Lys		
	145				150					155					160		
Pro	Phe	Pro	His	His	Pro	Gly	Trp	Arg	Arg	Trp	Asn	Phe	Ile	Tyr	Val		
			165					170						175			
Phe	His	Thr	Leu	Gly	Gln	Tyr	Phe	Gln	Lys	Leu	Gly	Arg	Cys	Ser	Val		
		180						185					190				
Arg	Val	Ser	Val	Asn	Thr	Ala	Asn	Val	Thr	Leu	Gly	Pro	Gln	Leu	Met		
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Glu	Val	Thr	Val	Tyr	Arg	Arg	His	Gly	Arg	Ala	Tyr	Val	Pro	Ile	Ala		
	210					215				220							
Gln	Val	Lys	Asp	Val	Tyr	Val	Val	Thr	Asp	Gln	Ile	Pro	Val	Phe	Val		
	225				230					235					240		
Thr	Met	Phe	Gln	Lys	Asn	Asp	Arg	Asn	Ser	Ser	Asp	Glu	Thr	Phe	Leu		
			245					250						255			
Lys	Asp	Leu	Pro	Ile	Met	Phe	Asp	Val	Leu	Ile	His	Asp	Pro	Ser	His		
		260					265					270					
Phe	Leu	Asn	Tyr	Ser	Thr	Ile	Asn	Tyr	Lys	Trp	Ser	Phe	Gly	Asp	Asn		
	275					280					285						
Thr	Gly	Leu	Phe	Val	Ser	Thr	Asn	His	Thr	Val	Asn	His	Thr	Tyr	Val		
	290					295					300						
Leu	Asn	Gly	Thr	Phe	Ser	Leu	Asn	Leu	Thr	Val	Lys	Ala	Ala	Ala	Pro		
	305				310					315					320		
Gly	Pro	Cys	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Arg	Pro	Ser	Lys	Pro	Thr		
			325							330				335			
Pro	Ser	Leu	Gly	Pro	Ala	Gly	Asp	Asn	Pro	Leu	Glu	Leu	Ser	Arg	Ile		
		340					345						350				
Pro	Asp	Glu	Asn	Cys	Gln	Ile	Asn	Arg	Tyr	Gly	His	Phe	Gln	Ala	Thr		
	355						360					365					
Ile	Thr	Ile	Val	Glu	Gly	Ile	Leu	Glu	Val	Asn	Ile	Ile	Gln	Met	Thr		
	370					375					380						
Asp	Val	Leu	Met	Pro	Val	Pro	Trp	Pro	Glu	Ser	Ser	Leu	Ile	Asp	Phe		
	385				390					395				400			
Val	Val	Thr	Cys	Gln	Gly	Ser	Ile	Pro	Thr	Glu	Val	Cys	Thr	Ile	Ile		
			405						410					415			
Ser	Asp	Pro	Thr	Cys	Glu	Ile	Thr	Gln	Asn	Thr	Val	Cys	Ser	Pro	Val		
		420					425					430					
Asp	Val	Asp	Glu	Met	Cys	Leu	Leu	Thr	Val	Arg	Arg	Thr	Phe	Asn	Gly		
	435						440					445					
Ser	Gly	Thr	Tyr	Cys	Val	Asn	Leu	Thr	Leu	Gly	Asp	Asp	Thr	Ser	Leu		
	450					455					460						
Ala	Leu	Thr	Ser	Thr	Leu	Ile	Ser	Val	Pro	Asp	Arg	Asp	Pro	Ala	Ser		
	465				470					475					480		
Pro	Leu	Arg	Met	Ala	Asn	Ser	Ala	Leu	Ile	Ser	Val	Gly	Cys	Leu	Ala		
			485					490						495			
Ile	Phe	Val	Thr	Val	Ile	Ser	Leu	Leu	Val	Tyr	Lys	Lys	His	Lys	Glu		
		500					505					510					
Tyr	Asn	Pro	Ile	Glu	Asn	Ser	Pro	Gly	Asn	Val	Val	Arg	Ser	Lys	Gly		
	515					520						525					
Leu	Ser	Val	Phe	Leu	Asn	Arg	Ala	Lys	Ala	Val	Phe	Phe	Pro	Gly	Asn		
	530					535					540						

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Gln Glu Lys Asp Pro Leu Leu Lys Asn Gln Glu Phe Lys Gly Val Ser  
 545 550 555 560

<210> 226  
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 <212> PRT  
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<400> 226  
 Ile Leu Ile Pro Ala Thr Trp Lys Ala  
 1 5

<210> 227  
 <211> 9  
 <212> PRT  
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<400> 227  
 Phe Leu Leu Asn Asp Asn Leu Thr Ala  
 1 5

<210> 228  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 228  
 Leu Leu Gly Asn Cys Leu Pro Thr Val  
 1 5

<210> 229  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens

<400> 229  
 Lys Leu Leu Gly Asn Cys Leu Pro Thr Val  
 1 5 10

<210> 230  
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 <212> PRT  
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<400> 230  
 Arg Leu Thr Gly Gly Leu Lys Phe Phe Val  
 1 5 10

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<400> 231
Ser Leu Gln Ala Leu Lys Val Thr Val
  1                      5
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<400> 232
Ala Gly Ala Asp Val Ile Lys Asn Asp Gly Ile Tyr Ser Arg Tyr Phe
 1          5          10          15
Phe Ser Phe Ala
          20
```

```
<400> 233
Phe Phe Ser Phe Ala Ala Asn Gly Arg Tyr Ser Leu Lys Val His Val
 1             5             10             15
Asn His Ser Pro Ser
      20
```

```
<400> 234
Phe Leu Val Thr Trp Gln Ala Ser Gly Pro Pro Glu Ile Ile Leu Phe
 1           5           10           15
Asp Pro Asp Gly
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```

<400> 235  
Leu Gln Ser Ala Val Ser Asn Ile Ala Gln Ala Pro Leu Phe Ile Pro  
1 5 10 15



```
<210> 236
<211> 20
<212> PRT
<213> Homo sapiens
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```
<210> 237
<211> 21
<212> PRT
<213> Homo sapiens
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<210> 238
<211> 20
<212> PRT
<213> Homo sapiens
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```
<210> 239
<211> 20
<212> PRT
<213> Homo sapiens
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$$\begin{array}{ll} \langle 210 \rangle & 240 \\ \langle 211 \rangle & 21 \end{array}$$

<213> Homo sapiens

Gly Gln Ala Thr Ser Tyr Glu Ile Arg Met Ser Lys Ser Leu Gln Asn  
1 5 10 15  
Ile Gln Asp Asp Phe  
20

<213> Homo sapiens

Glu Arg Lys Trp Gly Phe Ser Arg Val Ser Ser Gly Gly Ser Phe Ser  
1 5 10 15  
Val Leu Gly Val  
20

<213> Homo sapiens

Gly Ser His Ala Met Tyr Val Pro Gly Tyr Thr Ala Asn Gly Asn Ile  
1 5 10 15  
Gln Met Asn Ala  
20

<213> Homo sapiens

```
Val Asn His Ser Pro Ser Ile Ser Thr Pro Ala His Ser Ile Pro Gly
  1                               5          10          15
Ser His Ala Met
                20
```

<213> Homo sapiens

Ala Val Pro Pro Ala Thr Val Glu Ala Phe Val Glu Arg Asp Ser Leu  
1 5 10 15

His Phe Pro His  
20

<210> 245  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 245  
Lys Pro Gly His Trp Thr Tyr Thr Leu Asn Asn Thr His His Ser Leu  
1 5 10 15  
Gln Ala Leu Lys  
20

<210> 246  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 246  
Asn Leu Thr Phe Arg Thr Ala Ser Leu Trp Ile Pro Gly Thr Ala Lys  
1 5 10 15  
Pro Gly His Trp  
20

<210> 247  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 247  
Leu His Phe Pro His Pro Val Met Ile Tyr Ala Asn Val Lys Gln Gly  
1 5 10 15  
Phe Tyr Pro Ile  
20

<210> 248  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 248  
Pro Glu Thr Gly Asp Pro Val Thr Leu Arg Leu Leu Asp Asp Gly Ala  
1 5 10 15  
Gly Ala Asp Val  
20

<210> 249  
<211> 20

<212> PRT

<213> Homo sapiens

<400> 249

Gly Phe Tyr Pro Ile Leu Asn Ala Thr Val Thr Ala Thr Val Glu Pro  
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 Glu Thr Gly Asp  
 20

<210> 250

<211> 20

<212> PRT

<213> Homo sapiens

<400> 250

Phe Asp Pro Asp Gly Arg Lys Tyr Tyr Thr Asn Asn Phe Ile Thr Asn  
 1 5 10 15  
 Leu Thr Phe Arg  
 20

<210> 251

<211> 20

<212> PRT

<213> Homo sapiens

<400> 251

Leu Gln Ala Leu Lys Val Thr Val Thr Ser Arg Ala Ser Asn Ser Ala  
 1 5 10 15  
 Val Pro Pro Ala  
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<210> 252

<211> 153

<212> PRT

<213> Homo sapiens

<400> 252

Met Ala Ser Val Arg Val Ala Ala Tyr Phe Glu Asn Phe Leu Ala Ala  
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 Trp Arg Pro Val Lys Ala Ser Asp Gly Asp Tyr Tyr Thr Leu Ala Val  
 20 25 30  
 Pro Met Gly Asp Val Pro Met Asp Gly Ile Ser Val Ala Asp Ile Gly  
 35 40 45  
 Ala Ala Val Ser Ser Ile Phe Asn Ser Pro Glu Glu Phe Leu Gly Lys  
 50 55 60  
 Ala Val Gly Leu Ser Ala Glu Ala Leu Thr Ile Gln Gln Tyr Ala Asp  
 65 70 75 80  
 Val Leu Ser Lys Ala Leu Gly Lys Glu Val Arg Asp Ala Lys Ile Thr  
 85 90 95  
 Pro Glu Ala Phe Glu Lys Leu Gly Phe Pro Ala Ala Lys Glu Ile Ala  
 100 105 110

Asn Met Cys Arg Phe Tyr Glu Met Lys Pro Asp Arg Asp Val Asn Leu  
 115 120 125  
 Thr His Gln Leu Asn Pro Lys Val Lys Ser Phe Ser Gln Phe Ile Ser  
 130 135 140  
 Glu Asn Gln Gly Ala Phe Lys Gly Met  
 145 150

<210> 253  
 <211> 462  
 <212> DNA  
 <213> Homo sapiens

<400> 253  
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 ggtatctctg ttgctgatat tggagcagcc gtctctagca tttttaattc tccagaggaa 180  
 tttttaggca aggccttggg gctcagtgc gaagcactaa caatacagca atatgctgat 240  
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 gagaagctgg gattccctgc agcaaaggaa atagccaata tgtgtcgttt ctatgaaatg 360  
 aagccagacc gagatgtcaa tctcaccac caactaaatc ccaaagtcaa aagcttcagc 420  
 cagtttatct cagagaacca gggagccttc aagggcattg ag 462

<210> 254  
 <211> 8031  
 <212> DNA  
 <213> Homo sapiens

<400> 254  
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 ctttctcgcc acgttcgcgg gctttccccg tcaagctcta aatcgggggc tccctttagg 180  
 gttccgattt agtgctttac ggcacctcga ccccaaaaaa cttgattagg gtgatggttc 240  
 acgtagtggg ccacgcctt gatagacggt ttttcgccct ttgacgttgg agtccacgtt 300  
 ctttaatatg ggactcttgt tccaaacttg aacaacactc aaccttatct cggctctattc 360  
 ttttgattta taagggattt tgccgatttc ggccatttgg ttaaaaaatg agctgattta 420  
 acaaaaaatt aacgcgaatt ttaacaaaat attaacgttt acaatttcag gtggcacttt 480  
 tcggggaaat gtgcgcggaa cccctatttg tttatttttc taaatacatt caaatatgta 540  
 tccgctcatg aattaattct tagaaaaact catcgagcat caaatgaaac tgcaatttat 600  
 tcatatcagg attatcaata ccatattttt gaaaaagccg tttctgtaat gaaggagaaa 660  
 actcaccgag gcagttccat aggatggcaa gatcctggta tcgggtctgcg attccgactc 720  
 gtccaacatc aatacaacct attaatcttc cctcgtcaaa aataagggtta tcaagtgaga 780  
 aatcaccatg agtgacgact gaatccgggt agaattggcaa aagtttatgc atttctttcc 840  
 agacttggtc aacaggccag ccattacgct cgtcatcaaa atcactcgca tcaaccaaac 900  
 cgttattcat tcgtgattgc gctgagcga gacgaaatac gcgatcgctg ttaaaaggac 960  
 aattacaac aggaatcgaa tgcaaccggc gcaggaacac tgccagcgca tcaacaatat 1020  
 tttcacctga atcaggatat tcttctaata cctggaaatg tgttttcccg gggatcgag 1080  
 tgggtgagtaa ccatgcatca tcaggagtac ggataaaatg cttgatggtc ggaagaggca 1140  
 taaattccgt cagccagttt agtctgacca tctcatctgt aacatcattg gcaacgctac 1200  
 ctttgccatg tttcagaaac aactctggcg catcgggctt cccatacaat cgatagattg 1260  
 tcgcacctga ttgcccagaa ttatcgcgag cccatttata cccatataaa tcagcatcca 1320  
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<210> 255  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 9, 67, 247, 275, 277, 397  
 <223> n = A,T,C or G

<400> 255  
 gtggccagng actagaaggc gagggcgccgc gggaccatgg cggcggcggc ggacgagcgg 60  
 agtccanagg acggagaaga cgaggaagag gaggagcagt tggttctggt ggaattatca 120  
 ggaattattg attcagactt cctctcaaaa tgtgaaaata aatgcaagg tttgggcatt 180  
 gacactgaga ggcccattct gcaagtggac agctgtgtct ttgctgggga gtatgaagac 240  
 actctangga cctgtgttat atttgaagaa aatgntnaac atgctgatac agaaggcaat 300  
 aataaaacag tgctaaaata taaatgccat acaatgaaga agctcagcat gacaagaact 360  
 ctcttgacag agaagaagga aggagaagaa aacatangtg g 401

<210> 256  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 7, 37, 51, 79, 96, 98, 103, 104, 107, 116, 167, 181, 183,  
 194, 206, 276, 303, 307, 308, 310, 323, 332, 341, 353, 374,  
 376  
 <223> n = A,T,C or G

<400> 256  
 tggtagncct gggatgggga accgcggtgg cttccngnga ggtttcggca ntggcatccg 60  
 gggccgggggt cgcggccgng gacggggccg gggccnangc cgnnganctc gcggangcaa 120  
 ggccgaggat aaggagtgga tgcccgtcac caacttgggc cgcttgncca aggacatgaa 180  
 nancagccc ctgnaggaga tctatntctt cttccctgcc ccattaagga atcaagagat 240  
 catttgattt cttcctgggg gcctctctca aggatnaggt ttttgaagat tatgccagtg 300  
 canaaannan accccgttgc ccngtccatc tncaccaaac ncttccaagg gcnatTTTTTg 360  
 tttaggcctc attncngggg ggaaccttaa cccaatttgg g 401

<210> 257  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 382, 387  
 <223> n = A,T,C or G



<400> 257

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atgtatgtaa aacacttcat aaaatgtaaa gggctataac aaatatgtta taaagtgatt 60
ctctcagccc tgagggtatac agaatcattt gcctcagact gctgttggat tttaaaattt 120
ttaaaatata tgctaagtaa tttgctatgt cttctccac actatcaata tgcctgcttc 180
taacaggctc cccactttct tttaatgtgc tgttatgagc tttggacatg agataaccgt 240
gcctgttcag agtgtctaca gtaagagctg gacaaactct ggagggacac agtctttgag 300
acagctcttt tggttgcttt ccacttttct gaaaggttca cagtaacctt ctagataata 360
gaaactccca gttaaagcct angctancaa ttttttttag t 401
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<210> 258

<211> 401

<212> DNA

<213> Homo sapiens

<400> 258

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ggagcgctag gtcggtgtac gaccgagatt aggggtgcgtg ccagctccgg gaggccgcgg 60
tgagggggccg ggcccaagct gccgaccga gccgatcgtc aggggtcgcca gcgcctcagc 120
tctgtggagg agcagcagta gtcggagggt gcaggatatt agaaatggct actccccagt 180
caattttcat ctttgcaatc tgcattttta tgataacaga attaatctg gcctcaaaaa 240
gctactatga tatcttaggt gtgccaaaat cggcatcaga gcgccaaatc aagaaggcct 300
ttcacaagtt ggccatgaag taccaccctg acaaaaataa gaccagatg ctgaagcaaa 360
attcagagag attgcagaag catatgaaac actctcagat g 401
```

<210> 259

<211> 401

<212> DNA

<213> Homo sapiens

<400> 259

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attgggtttg gagggaggat gatgacagag gaatgccctt tggccatcac ggttttgatt 60
ctccagaata ttgtgggttt gatcatcaat gcagtcattg taggctgcat ttcatgaaa 120
acagctcagg ctacagaag ggcagaaact ttgattttca gccgccatgc tgtgattgcc 180
gtccgaaatg gcaagctgtg cttcatgttc cgagtgggtg acctgaggaa aagcatgac 240
attagtgcct ctgtgcgcat ccaggtggtc aagaaaacaa ctacacctga aggggagggtg 300
gttcttatcc accaactgga cattcctgtt gataacccaa tcgagagcaa taacattttt 360
ctggtggccc ctttgatcat ctgccacgtg attgacaagc g 401
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<210> 260

<211> 363

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 7, 9, 19, 41, 63, 73, 106, 111, 113, 116, 119, 156, 158,  
162, 187, 247, 288, 289, 290, 292, 298, 299, 300, 340

<223> n = A,T,C or G

<400> 260

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aggaganang gaggggggana tgaataggga tggagaggga natagtggat gagcaggga 60
caggagagg aancagaaag gagaggcaag acagggagac acacancaca nangangana 120
caggtggggg ctgggggtggg gcatggagag cttttnangt cncccaggcc acctgtctct 180
cgctggngctg ttgaaaccca ctccatggct tcctgccact gcagttgggc ccagggtctg 240
cttatnctg gaatgcaagt ggctgtggct tggagcctcc cctctggnnn anggaaannn 300
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attgctccct tatctgcttg gaatatctga gtttttccan cccggaaata aaacacacac 360  
aca 363

<210> 261  
<211> 401  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 114, 152  
<223> n = A,T,C or G

<400> 261  
cggtcttccg ccgctctccc ggggtttcgg ggcacttggg tcccacagtc tggctcctgct 60  
tcaccttccc ctgacctgag tagtcgccat ggcacagggt ctcagaggca ctgngactga 120  
cttccctgga tttgatgagc gggctgatgc anaaactctt cggaaggcta tgaaaggott 180  
gggcacagat gaggagagca tctgactct gttgacatcc cgaagtaatg ctcagcgcca 240  
ggaaatctct gcagctttta agactctgtt tggcagggat cttctggatg acctgaaatc 300  
agaactaact ggaaaatttg aaaaattaat tgtggctctg atgaaacctt ctcggcttta 360  
tgatgcttat gaactgaaac atgccttgaa gggagctgga a 401

<210> 262  
<211> 401  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 7, 26, 258, 305, 358, 373, 374, 378  
<223> n = A,T,C or G

<400> 262  
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tttttaata ctgtaaagt acatatagtt ataagatata tttctgtaca gtagagaaag 120  
agtttataac atgaagaata ttgtaccatt atacattttc attctcgatc tcataagaaa 180  
ttcaaaagaa taatgataga ggtgaaaata tgtttacttt ctctaaatca agcctagttg 240  
tcaactcaaa aattatgntg catagtttta ttttgaattt aggttttggg actacttttt 300  
tccancttca atgagaaaat aaaatctaca actcaggagt tactacagaa gttctaanta 360  
tttttttgct aannagcnaa aaatataaac atatgaaaat g 401

<210> 263  
<211> 401  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 232, 290, 304, 326, 383  
<223> n = A,T,C or G

<400> 263  
ctgtccgacc aagagaggcc ggccgagccc gaggcttggg cttttgcttt ctggcggagg 60  
gatctgcggc ggtttaggag gcggcgctga tcttgggagg aagaggcagc tacggcggcg 120

```

gcggcggtgg cggctagggc ggcggcgaat aaaggggccc cgcgcgggtg atgcgggtgac 180
cactgcggca ggcccaggag ctgagtgggc cccggccctc agcccgtccc gncggacccg 240
ctttcctcaa ctctccatct tctcctgccc accgagatcg ccgaggcggn ctcaggctcc 300
ctanccctt ccccgtcct tcccncccc cgtccccgcc ccgggggccc ccgccacccg 360
cctcccacca tggctctgaa ganaatccac aaggaattga a 401

```

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<210> 264
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<400> 264
aacaccagcc actccaggac cctgaaggc ctctaccagg tcaccagtgt tctgogccta 60
aagccacccc ctggcagaaa cttcagctgt gtgttctgga atactcacgt gagggaaactt 120
actttggcca gcattgacct tcaaagtcag atggaaccca ggacccatcc aacttggctg 180
cttcacattt tcatccctc ctgcatcatt gctttcattt tcatagccac agtgatagcc 240
ctaagaaaac aactctgtca aaagctgtat tcttcaaaag acacaacaaa aagacctgtc 300
accacaacaa agaggggaagt gaacagtgtc gtgaatctga acctgtggtc ttgggagcca 360
gggtgacctg atatgacatc taaagaagct tctggactct g 401

```

```

<210> 265
<211> 271
<212> DNA
<213> Homo sapiens

```

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<220>
<221> misc_feature
<222> 59
<223> n = A,T,C or G

```

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<400> 265
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cgctggggggg tctttgtgat ggtcatgggt ctcatattgca cttgggggtg tgggattcaa 120
gttagaagtt tctagatctg gccgggcgca gtggctcaca cctgtaatcc cagcaacttta 180
ggaggctgag gcaggcggat catgaggtca ggagatcgag accgtcctgg ctaacacagt 240
gaaacccctg ctctactaaa aatacaaaaa a 271

```

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<210> 266
<211> 401
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 45
<223> n = A,T,C or G

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<400> 266
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gacagcaaaa ttttcatgaa atgtaaaata tttttatagt ttgttcatac tatatgaggt 120
tctatttttaa atgactttct ggatttttaa aaatttcttt aaatacaatc atttttgtaa 180
tattttatttt atgcttatga tctagataat tgcagaatat cattttatct gactctgtct 240
tcataagaga gctgtggccg aattttgaac atctgttata gggagtgatc aaattagaag 300
gcaatgtgga aaaacaattc tgggaaagat ttctttatat gaagtcacctg ccactagcca 360

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gccatcctaa ttgatgaaag ttatctgttc acaggcctgc a 401

<210> 267

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 116, 247, 277, 296, 307, 313, 322, 323, 336, 342, 355, 365, 377, 378, 397

<223> n = A,T,C or G

<400> 267

```
gaagaggcat cacctgatcc cggagacctt tggagttaag aggcggcgga agcgagggcc 60
tgtggagtcg gatcctcttc ggggtgagcc agggtcggcg cgcgcggctg totcanaact 120
catgcagctg ttcccgcgag gcctgtttga ggacgcgctg ccgcccacg tgetgaggag 180
ccaggtgtac agccttgtgc ctgacaggac cgtggccgac cggcagctga aggagcttca 240
agagcanggg gagacaaaat cgtccagctg ggcttcnact tggatgcca tggaanttat 300
tctttcnctt ganggactta cnngggaccc aagaanccct tncaaggggc ccttngtgga 360
tgggncccga aaccccnnta tttgcccttg ggggggncca a 401
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<210> 268

<211> 223

<212> DNA

<213> Homo sapiens

<400> 268

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tgcctatgtt ggccaggctg gtcttgaact cctgacttta agtgatccac ccgcctcaac 60
ctcccaaagt gctgggatta cagggtgtag ccaccgcgcc tggcctgata catactttta 120
gaatcaagta gtcacgcact ttttctgttc atttttctaa aaagtaaata tacaaatgtt 180
ttgttttttg ttttttttgt ttgtttgttt ctgttttttt ttt 223
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<210> 269

<211> 401

<212> DNA

<213> Homo sapiens

<400> 269

```
actatgtaaa ccacattgta ctttttttta ctttggcaac aaatatttat acatacaaga 60
tgctagtcca tttgaatatt tctcccaact tatccaagga totccagctc taacaaaatg 120
gtttattttt atttaaattg caatagtgtt tttttaaact ccaaatcaga ggtgcaggcc 180
accagttaaa tgccgtctat cagggtttgt gccttaagag actacagagt caaagctcat 240
ttttaaagga gtaggacaaa gttgtcacag gttttgttg ttgtttttat tgccccaaa 300
attacatgtt aatttccatt tatatcaggg attctattta cttgaagact gtgaagttgc 360
cattttgtct cattgttttc tttgacataa ctaggatcca t 401
```

<210> 270

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 240, 382  
 <223> n = A,T,C or G

<400> 270  
 tggctgttga ttcacctcag cactgcttgg tatctgcacc ctacctctct ttagaggctg 60  
 ccttgtcaac tgaaaaatgc acctgacttc gagcaagact ctttccttag gttctggatc 120  
 tgtttgagcc ccatggcact gagctggaat ctgagggctct tgttccaagg atgtgatgat 180  
 gtgggagaat gttctttgaa agagcagaaa tccagtctgc atggaaacag cctgtagagn 240  
 agaagtttcc agtgataagt gttcactgtt ctaaggaggt acaccacagc tacctgaatt 300  
 ttcccaaaat gagtgccttc gtgcgttaca actggccttt gtacttgact gtgatgactt 360  
 tgttttttct tttcaattct anatgaacat gggaaaaaat g 401

<210> 271  
 <211> 329  
 <212> DNA  
 <213> Homo sapiens

<400> 271  
 ccacagcctc caagtcaggt ggggtggagt cccagagctg cacagggttt ggcccaagtt 60  
 tctaagggag gcaattcttc cctcgcacca tcagtgccag cccctgctgg ctggtgcctg 120  
 agccctcag acagcccttc gccccgcagg cctgccttct cagggacttc tgcggggcct 180  
 gaggaagcc atggagttag acccaggagc cggacacttc tcaggaaatg gcttttccca 240  
 acccccagcc cccaccgggt ggttcttctt gttctgtgac tgtgtatagt gccaccacag 300  
 cttatggcat ctcatlgagg acaaaaaaa 329

<210> 272  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 1, 7, 12, 21, 61, 62, 66, 72, 78, 88, 90, 92, 98, 117, 119,  
 128, 130, 134, 142, 144, 151, 159, 162, 164, 168, 169, 177,  
 184, 185, 188, 194, 202, 204, 209, 213, 218, 223, 231, 260,  
 272, 299, 300, 306, 321, 322, 323, 331, 335, 336, 338  
 <223> n = A,T,C or G

<221> misc\_feature  
 <222> 341, 342, 343, 345, 346, 351, 358, 360, 362, 363, 387, 390,  
 392  
 <223> n = A,T,C or G

<400> 272  
 nggctgntaa cntcggaggt nacttcctgg actatcctgg agacccctc cgcttccaag 60  
 nncatnatat cnetcatngc tgggcccntn angacacnat ccactccaa cacctgngng 120  
 atgctggncn cctnggaacc anctcagaa ngaccctgnt cntntgtnt cgcgaanctg 180  
 aagnnaangc gggntacacc tncntgcant ggnccacnct gcnggggaact ntacacacct 240  
 acgggatgtg gctgcgccan gagccaagag cntttctgga tgattcccca gcctcttgnn 300  
 aggganteta caacattgct nnntaccttt ntcennengc nnnntntgga ntacaggngn 360  
 tnntaact actatctttt tactgcncn tnccttggtgg g 401

<210> 273  
 <211> 401

129



<400> 276

```
tctgatattg ntacccttga gccacctaag ttagaagaaa ttggaaatca agaagttgtc 60
attgttgaag aagcacagag ttcagaagac tttaacatgg gctcttcctc tagcagccag 120
tatactttct gtcagccaga aactgtatct tcatctcagc ctagtgatga tgaatcaagt 180
agtgatgaaa ccagtaatca gcccagtcct gccttttagac gacgccgtgc taggaagaag 240
accgtttctg cttcagaatc tgaagaccgg ctagttgggtg aacaagaaac tgaaccttct 300
aaggagttga gtaaacgtca gttcagtagt ggtctcaata agtgtgttat acttgctttg 360
gtgattgcaa tcagcatggg atttggccat ttctatggca c 401
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<210> 277

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 227, 333

<223> n = A,T,C or G

<400> 277

```
aactttggca acatatctca gcaaaaacta cagctatggt attcatgccca aaataaaagc 60
tgtgcagagg agtggctgca atgaggtcac aacggtgggt gatgtaaaag agatcttcaa 120
gtcctcatca cccatccctc gaactcaagt cccgctcatt acaaatctct cttgccagtg 180
tccacacatc ctgccccatc aagatgttct catcatgtgt tacgagnggc gctcaaggat 240
gatgtcttct gaaaattgct tagttgaaaa atggagagat cagcttagta aaagatccat 300
acagtgggaa gagaggctgc aggaacagcg ganaacagtt caggacaaga agaaaacagc 360
cgggcgccacc agtcgtagta atccccccaa accaaaggga a 401
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<210> 278

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 322, 354

<223> n = A,T,C or G

<400> 278

```
aatgagtgtg agaccacaaa tgaatgccgg gaggatgaaa tgtgttggaa ttatcatggc 60
ggottccgtt gttatccacg aaatccttgt caagatccct acattctaac accagagAAC 120
cgatgtgttt gccagtcctc aaatgccatg tgccgagaac tgccccagtc aatagtctac 180
aaatacatga gcatccgata tgataggtct gtgccatcag acatcttcca gatacaggcc 240
acaactatct atgccaacac catcaatact ttctcgatta aatctggaaa tgaaaatgga 300
gagtctacct acgacaacaa anccctgtaa gtgcaatgct tgtgctcgtg aagncattat 360
caggaccaag agaacatata gtggacctgg agatgctgac a 401
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<210> 279

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature  
 <222> 30, 35, 81, 88, 180, 212, 378, 384, 391  
 <223> n = A,T,C or G

<400> 279  
 aaattattgc ctctgataca tacctaagtn aacanaacat taatacctaa gtaaacataa 60  
 cactacttgg agggttgcag nttctaantg aaactgtatt tgaaactttt aagtatactt 120  
 taggaaacaa gcatgaacgg cagtctagaa taccagaaac atctacttgg gtagcttggn 180  
 gccattatcc tgtggaatct gatatgtctg gnagcatgtc attgatggga catgaagaca 240  
 tctttggaaa tgatgagatt atttcctgtg ttaaaaaaaaa aaaaaatcct aaattcctac 300  
 aatgtgaaac tgaaactaat aattttgatc ctgatgtatg ggacagcgta tctgtaccag 360  
 gctctaaata acaaaaagnta gggngacaag nacatgttcc t 401

<210> 280  
 <211> 326  
 <212> DNA  
 <213> Homo sapiens

<400> 280  
 gaagtggaaat tgtataattc aattcgataa ttgatctcat gggctttccc tggaggaaaag 60  
 gttttttttt ttgttttttt ttttaagaact tgaaacttgt aaactgagat gtctgtagct 120  
 tttttgcccc tctgtagtgt atgtgaagat ttcaaaacct gagagcactt tttctttgtt 180  
 tagaattatg agaaaggcac tagatgactt taggatttgc atttttccct ttattgcctc 240  
 atttcttgtg acgccttgtt ggggagggaa atctgtttat tttttcctac aaataaaaaag 300  
 ctaagattct atatcgcaaa aaaaaa 326

<210> 281  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

<400> 281  
 caacgcgttt gcaaatattc ccttggtagc ctacttcctt acccccgaat attggtgaaga 60  
 tcgagcaatg gcttcaggac atgggttctc ttctcctgtg atcattcaag tgcctactgc 120  
 atgaagactg gcttgtctca gtgtttcaac ctcaccaggg ctgtctcttg gtccacacct 180  
 cgctccctgt tagtgccgta tgacagcccc catcaaatga ccttggccaa gtcacgggtt 240  
 ctctgtggtc aagggttggtt ggctgattgg tggaaagtag ggtggaccaa aggaggccac 300  
 gtgagcagtc agcaccagtt ctgcaccagc agcgcctccg tcctagtggg tgttcctgtt 360  
 tctcctggcc ctgg 374

<210> 282  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 26, 27, 51, 137, 180, 222  
 <223> n = A,T,C or G

<400> 282  
 agtgtggtgg aattccccga tcttanncgc cgactcacac aaggcagagt ngccatggag 60  
 aaaattccag tgtcagcatt ctgtctcctt gtggccctct cctacactct ggccagagat 120  
 accacagtca aacctgnagc caaaaaggac acaaaggact ctcgacccaa actgccccan 180



acctctctcca	gaggttgggg	tgaccaactc	atctggactc	anacatatga	agaagctcta	240
tataaatcca	agacaagcaa	caaacccttg	atgattattc	atcacttgga	tgagtgccca	300
cacagtcaag	ctttaagaa	agtgtttgct	gaaaataaag	aaatccagaa	attggcagag	360
cagtttgtcc	tctcaatct	ggtttatgaa	acaactgaca	aaca		404

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<210> 283
<211> 184
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 26
<223> n = A,T,C or G
```

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<400> 283
agtgtggtgg aattcacttg cttaanttgt gggcaaaaga gaaaaagaag gattgatcag 60
agcattgtgc aatacagttt cattaactcc ttccctcgct cccccaaaaa tttgaatttt 120
tttttcaaca ctcttacacc tgttatggaa aatgtcaacc tttgtaagaa aacccaaata 180
aaaa                                              184
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<210> 284
<211> 421
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 147, 149
<223> n = A,T,C or G
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<400>	284						
ctattaatcc	tgccacaata	tttttaatta	cgtacaaaga	tctgacatgt	caccacagga	60	
cccatttcac	ccactgctct	gtttggccgc	cagtcttttg	tctctctctt	cagcaatggt	120	
gaggcggata	ccctttctct	ggggaanana	aatccatggt	ttgttgccct	tgccaataac	180	
aaaaatggtg	gaaagtcgag	tggcaaagct	gttgccattg	gcctctttca	cgtgaaccac	240	
gtcaaaaagat	ccagggtgcc	tctctctggt	ggtgatcaca	ccaattcttc	ctaggtttagc	300	
acctccagtc	accatacaca	ggttaccagt	gtcgaacttg	atgaaatcag	taatcttgcc	360	
agtctctaaa	tcaatctgaa	tggtatcatt	caccttgatg	aggggatcgg	ggtagcggat	420	
g						421	

```
<210> 285
<211> 361
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 34, 188
<223> n = A,T,C or G
```

<400> 285  
ctgggtggta actctttatt tcattgtcog gaanaaagat gggagtgggg acaggggtgga 60  
cactgtgcag gcttcagctt ccactccggg caggattcag gctatctggg accgcagqqa 120



```

aagtttttaa acttttttatt tgcataattaa aaaaattgng cattccaata attaaaatca 60
tttgaacaaa aaaaaaaatg gcactctgat taaactgcat tacagcctgc aggacacctt 120
gggccagctt ggtttttactc tanattttcac tgtcgtccca cccacttct tocacccac 180
ttcttccttc accaacatgc aagttctttc cttccctgcc agccanatag atagacagat 240
gggaaaggca ggcgcggcct tcgttgtcag tagttctttg atgtgaaagg ggcagcacag 300
tcattttaac ttgatccaac ctctttgcat cttacaaagt taaacagcta aaagaagt 358

```

<210> 289

<211> 462

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 87, 141, 182, 220, 269, 327

<223> n = A,T,C or G

<400> 289

```

ggcatcagaa atgctgttta tttctctgct gctcccaagc tggttggcct ttgcagagga 60
gcagacaaca gatgcatagt tgggganaaa gggaggacag gttccaggat agaggggtgca 120
ggctgaggga ggaagggtaa naggaaggaa ggccatcctg gatccccaca tttcagtctc 180
anatgaggac aaagggactc ccaagccccc aaatcatcan aaaacaccaa ggagcaggag 240
gagcttgagc aggccccagg gagcctcana gccataccag ccactgtcta cttcccatcc 300
tcctctccca ttccctgtct gcttcanacc acctcccagc taagccccag ctccattccc 360
ccaatectgg cccttgccag cttgacagtc acagtgcctg gaattccacc actgaggett 420
ctcccagttg gattaggacg tcgcctgtt agcatgctgc cc 462

```

<210> 290

<211> 481

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 44, 57, 122, 158, 304, 325, 352, 405

<223> n = A,T,C or G

<400> 290

```

tactttccta aactttatta aagaaaaaag caataagcaa tggnggtaaa tctctanaac 60
atacccaatt ttctgggctt cctcccccca gaatgtgaca ttttgatttc caaacatgcc 120
anaagtgtat ggttcccaac tgtactaaag taggtganaa gctgaagtcc tcaagtgttc 180
atcttccaac ttttcccagt ctgtgggtctg tctttggatc agcaataatt gcctgaacag 240
ctactatggc ttcgttgatt tttgtctgta gctctctgag ctctctatg tgcagcaatc 300
gcanaatttg agcagcttca ttaanaactg catctcctgt gtcaaaacca anaatatgtt 360
tgtctaaagc aacaggtaag ccctcttttg tttgatttgc cttancaact gcatcctgtg 420
tcaggcgctc ctgaacccaa atccgaattg ccttaagcat taccaggtaa tcatcatgac 480
g 481

```

<210> 291

<211> 381

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature  
 <222> 79, 166, 187, 208, 219, 315  
 <223> n = A,T,C or G

<400> 291  
 tcatagtaat gtaaaacccat ttgtttaatt ctaaatacaa tcactttcac aacagtgaag 60  
 attagtgact ggtaaggng tgccactgta catatcatca tttctgact ggggtcagga 120  
 cctggccta gtccacaagg gtggcaggag gaggggtggag gctaanaaca cagaaaacac 180  
 aaaaaanaaa ggaaagctgc cttggcanaa ggatgaggng gtgagcttgc cgaaggatgg 240  
 tgggaagggg gctccctgtt ggggccgagc caggagtccc aagtcagctc tcctgcctta 300  
 cttagctcct ggcanagggt gagtggggac ctacgaggtt caaaatacaa tggcatttgg 360  
 ccagcctggc ttactaaca g 381

<210> 292  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 32, 55, 72, 151, 189, 292  
 <223> n = A,T,C or G

<400> 292  
 gaaaaaataa tccgtttaat tgaaaaacot gnaggatact attccactcc cccanattgag 60  
 gaggctgagg anaccaaacc cctacatcac ctctgtagca ctcttgatac tcttcacgag 120  
 gcagcaggca aagacaattc ccaaaacctc nacaaaagca attccaaggg ctgctgcagc 180  
 taccaccanc acatttttcc tcagccagcc cccaattctc tccacacagc cctccttatg 240  
 gatcgcttcc tcgttgaaat taatcccaca gccacagta acattaatgc ancaggagtc 300  
 ggggactcgg ttcttcgaca tggaagggat tttctcccaa tctgtgtagt tagcagcccc 360  
 acagcactta a 371

<210> 293  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 75, 196, 222  
 <223> n = A,T,C or G

<400> 293  
 gatttaaaaag aaaacacttt attgttcagc aattaaaagt tagccaaata tgtatttttc 60  
 tccataattt attngatgt tatcaacatc aagtaaaatg ctcatittca tcatttgctt 120  
 ctgttcattg tttcttgaac acgtcttcaa ttttcttcc aaaatgctgc atgccact 180  
 tgaggtaacg aagcanaagt atttttaaac atgacagcta anaacattca tctacagcaa 240  
 cctatatgct caatacatgc cgcgtgatcc tagtagtttt ttcacaacct tctacaagtt 300  
 tttggaaaac atctgttatg atgactttca tacaccttca cctcaaaggc tttcttgac 360  
 c 361

<210> 294  
 <211> 391  
 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 26, 77, 96, 150, 203, 252, 254, 264, 276

<223> n = A,T,C or G

<400> 294

```
tatttttaaag tttaattatg attcanaaaa aatcgagcga ataactttct ctgaaaaaat 60
atattgactc tgtatanacc acagttattg gggganaagg gctggtaggt taaattatcc 120
tattttttat tctgaaaatg atattaatan aaagtcccgt ttccagtctg attataaaga 180
tacatatgcc caaaatggct ganaataaat acaacaggaa atgcaaaagc tgtaaagcta 240
agggcattgca ananaaaatc tcanaatacc caaagnggca acaaggaacg ttgggctgga 300
atttgaagtt atttcagtca tctttgtctt tggctccatg ttccaggatg cgtgtgaact 360
cgatgtaatt gaaattcccc tttttatcaa t                                     391
```

<210> 295

<211> 343

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 145, 174, 205, 232

<223> n = A,T,C or G

<400> 295

```
ttcttttggt ttattgataa cagaaactgt gcataattac agatttgatg aggaatctgc 60
aaataataaa gaatgtgtct actgccagca aaatacaatt attccatgcc ctctcaacat 120
acaaatatag agttcttcac accanattgc tctgggtgtaa caaagccatt ttanatgttt 180
aattgtgctt ctacaaaacc ttcanagcat gaggtagttt cttttacctt cnatattttc 240
cacatttcca ttattacact tttagtgcgc taaaatcctt ttaacatagc ctgcggatga 300
tctttcacaa aagccaagcc tcatttacia agggtttatt tct                                     343
```

<210> 296

<211> 241

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 96, 98, 106, 185

<223> n = A,T,C or G

<400> 296

```
ttcttgkata ttggttggtt ttgtgaaaaa gtttttggtt ttcttctcag tcaactgaat 60
tatttctcta ctttgccctc ctgatccca catgananaa cttaanataa tttctaacag 120
cttcactttt ggaaaaaa aaacactgtt ttctcatgga aaccccagga gttgaaagtg 180
gatanatgcg tctcaaaatc taaggctctg ttcagcttta cattatgtta cctgaacgtt 240
t                                     241
```

<210> 297

<211> 391

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 12, 130

<223> n = A,T,C or G

<400> 297

```
gttgtggctg anaatgctgg agatgctcag ttctctccct cacaaggtag gccacaaatt 60
cttgggtggg ccctcacatc tggggctctc aggcaccagc catgcctgcc gaggagtgt 120
gtcaggacan accatgtccg tgctaggccc aggcacagcc caaccactcc tcatccaagt 180
ctctcccagg tttctgggtcc cgatgggcaa ggatgacccc tccagtggct ggtaccccac 240
catcccacta cccctcacat gctctcactc tccatcaggt cccaatcct ggcttccctc 300
ttcacgaact ctcaaagaaa aggaaggata aaacctaaat aaaccagaca gaagcagctc 360
tggaagagta caaaaagaca gccagagggtg t 391
```

<210> 298

<211> 321

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 14, 30, 76, 116, 201, 288, 301

<223> n = A,T,C or G

<400> 298

```
caagccaaac tgtntccagc tttattaaan atacctttcca taaacaatca tgggtatttca 60
ggcaggacat gggcanacaa tcgttaacag tatacaacaa ctttcaaact cccctnttca 120
atggactacc aaaaatcaaa aagccactat aaaacccaat gaagtcttca tctgatgtct 180
tgaacaggga aagttttaaag ngagggttga catttcacat ttagcatgtt gtttaacaac 240
ttttcacaag cgcacctga ctttcaggaa gtgaaatgaa aatggcanaa tttatctgaa 300
natccacaat ctaaaaatgg a 321
```

<210> 299

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 104, 268, 347

<223> n = A,T,C or G

<400> 299

```
tatcataaag agtgttgaag tttatttatt atagcaccat tgagacattt tgaaatttga 60
atttggtaaaa aaataaaaca aaaagcattt gaattgtatt tggnggaaca gcaaaaaaag 120
agaagtatca tttttctttg tcaaattata ctgtttccaa acatttttga aataaataac 180
tggaattttg tcggtcactt gcactggttg acaagattag aacaagagga acacatatgg 240
agttaaattt tttttgttgg gatttcanat agagtttggg ttataaaaaa caaacagggc 300
caacgtccac accaaattct tgatcaggac caccaatgtc atagggngca atatctacaa 360
taggtagtct cacagccttg cgtgttcgat attcaaagac t 401
```

<210> 300

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<211> 188  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 48  
 <223> n = A,T,C or G

<400> 300  
 tgaatgcttt gtcataattaa gaaagttaaa gtgcaataat gtttgaanac aataagtggt 60  
 ggtgtatctt gtttctaata agataaactt ttttgtcttt gctttatctt attagggagt 120  
 tgtatgtcag tgtataaaac atactgtgtg gtataacagg cttaataaat tctttaaaag 180  
 gaaaaaaa 188

<210> 301  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 301  
 aagattttgt tttattttat tatggctaga aagacactgt tatagccaaa atcggcaatg 60  
 acactaaaga aatcctctgt gcttttcaat atgcaaatat atttcttcca agagttgccc 120  
 tgggtgtgact tcaagagttc atgttaactt cttttctgga aacttccttt tcttagttgt 180  
 tgtattcttg aagagcctgg gccatgaaga gcttgccata gttttgggca gtgaactcct 240  
 tgatgttctg gcagtaagtg tttatctggc ctgcaatgag cagcgagtcc a 291

<210> 302  
 <211> 341  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 25  
 <223> n = A,T,C or G

<400> 302  
 tgatttttca taattttatt aaatnatcac tgggaaaact aatggttcgc gtatcacaca 60  
 attacactac aatctgatag gagtggtaaa accagccaat ggaatccagg taaagtacaa 120  
 aaacgccacc ttttattgtc ctgtcttatt tctcgggaag gagggttcta ctttacacat 180  
 ttcattgagcc agcagtggac ttgagttaca atgtgtaggt tctttgtggt tatagctgca 240  
 gaagaagcca tcaaattctt gaggacttga catctctcgg aaagaagcaa actagtggat 300  
 cccccgggct gcaggaattc gatatcaagc ttatcgatac c 341

<210> 303  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 15, 27, 92, 124, 127, 183, 198, 244, 320  
 <223> n = A,T,C or G

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```

<400> 303
tgcagacagt aaatnaattt tatttgngtt cacagaacat actaggcgat ctgcacagtc 60
gctccgtgac agcccaccaa cccccaaccc tntacctgc agccacccta aaggcgactt 120
caanaanatg gaaggatctc acggatctca ttctaatgg tccgccgaag tctcacacag 180
tanacagacg gaggatganat gctggaggat gcagtcacct cctaaactta cgaccaccca 240
ccanacttca tcccagccgg gacgtcctcc cccacccgag tcttcccat ttcttctcct 300
actttgccgc agttccaggn gtctgtcttc caccagtccc acaaagctca ataaatacca 360
a 361

```

<210> 304

<211> 301

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 23, 104, 192

<223> n = A,T,C or G

```

<400> 304
ctcttttacia cagcctttat ttncggccct tgatcctgct cggatgctgg tggaggccct 60
tagctccgcc cgccaggctc tgtgccgcct cccgcaggc gcanattcat gaacacggtg 120
ctcaggggct tgaggccgta ctccccagc gggagctggt cctccagggg ctccccctcg 180
aaggtcagcc anaacaggtc gtctgcaca cctccagcc cgtcacttg ctgcttcagg 240
tgggccacgg tctgcgtcag ccgcacctcg taggtgctgc tgcggccctt gttattcctc 300
a 301

```

<210> 305

<211> 331

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 3, 36, 60, 193, 223

<223> n = A,T,C or G

```

<400> 305
ganaggctag taacatcagt tttattgggt tgggnggca accatagcct ggctgggggn 60
ggggctggcc ctcacaggtt gttgagttcc agcagggtct ggtccaaggt ctggtgaatc 120
tcgacgttct cctccttggc actggccaag gtctcttcta ggtcatcgat ggttttctcc 180
aactttgcc canacctctc ggcaaactct gctcgggtct canctcctt cagcttctcc 240
tccaacagtt tgatctcttc ttcatattta tcttctttgg gggaatactc ctctcttgag 300
gccatcaggg acttgagggc ctggtccatg g 331

```

<210> 306

<211> 457

<212> DNA

<213> Homo sapiens

<400> 306

```

aatatgtaaa ggtaataact tttatttat taaagacaat gcaaacgaaa aacagaattg 60
agcagtgcaa aatttaaagg actgttttgt tctcaaagtt gcaagtttca aagccaaaag 120

```



```

aattatatgt atcaaataa taagtaaaaa aaagttagac tttcaagcct gtaatcccag 180
cactttggga ggctgaggca ggtggatcac taacattaaa aagacaacat tagattttgt 240
cgatttatag caattttata aatatataac tttgtcactt ggatcctgaa gcaaaataat 300
aaagtgaatt tgggattttt gtacttggtg aaaagttaa caccctaaat tcacaactag 360
tggatccccc gggctgcagg aattcgatat caagcttatc gataccgtcg acctcgaggg 420
ggggcccggt acccaattcg ccctatagtg agtcgta 457

```

<210> 307

<211> 491

<212> DNA

<213> Homo sapiens

<400> 307

```

gtgcttgagc ggaaccgggc gctcgttccc caccocggcc ggccgcccac agccagccct 60
ccgtcacctc ttcaccgcac cctcggactg cccaaggcc cccgcccgcg ctccagcgcc 120
ggcagccac cgcgcgcgc ggcgcctctc cttagtgcgc gccatgacga ccgcgtccac 180
ctcgcagggt cgcagaaact accaccagga ctgagggcc gccatcaacc gccagatcaa 240
cctggagctc tacgcctcct acgtttacct gtccatgtct tactactttg accgcgatga 300
tgtggctttg aagaactttg ccaaatactt tcttcaccaa tctcatgagg agagggaaca 360
tgctgagaaa ctgatgaagc tgcagaacca acgaggtggc cgaatcttcc ttcaggatat 420
caagaaacca gactgtgatg actgggagag cgggctgaat gcaatggagt gtgcattaca 480
tttggaaaaa a 491

```

<210> 308

<211> 421

<212> DNA

<213> Homo sapiens

<400> 308

```

ctcagcgctt cttctttctt ggtttgatcc tgactgctgt catggcgtgc cctctggaga 60
aggccctgga tgtgatggtg tccaccttcc acaagtactc gggcaaagag ggtgacaagt 120
tcaagctcaa caagtcagaa cttaaaggagc tgctgaccgc ggagctgccc agcttcttgg 180
ggaaaaggac agatgaagct gctttccaga agctgatgag caacttggac agcaacaggg 240
acaacgaggt ggaacttcaa gactactgtg tcttcctgtc ctgcacgcc atgatgtgta 300
acgaattctt tgaaggcttc ccagataagc agcccaggaa gaaatgaaaa ctccctctgat 360
gtggttgggg ggtctgccag ctggggccct ccctgtcgcc agtgggcact ttttttttcc 420
c 421

```

<210> 309

<211> 321

<212> DNA

<213> Homo sapiens

<400> 309

```

accaaatggc ggatgacgcc ggtgcagcgg gggggcccg ggccctggt ggccctggga 60
tggggaaccg cgggtggcttc cgcggagggt tcggcagtg catccggggc cggggtcgcg 120
gccgtggacg gggccggggc cgaggccgcg gagctcgcg aggcaaggcc gaggataagg 180
agtggatgcc cgtcaccaag ttgggccgct tggtaagga catgaagatc aagtccttgg 240
aggagatcta tctcttctcc ctgccatta aggaatcaga gatcattgat ttcttcctgg 300
gggcctctct caaggatgag g 321

```

<210> 310

<211> 381

<212> DNA

<213> Homo sapiens

<400> 310

```
ttaaccagcc atattggctc aataaatagc ttcggttaagg agttaatttc cttctagaaa 60
tcagtgccta tttttcctgg aaactcaatt ttaaatagtc caattccatc tgaagccaag 120
ctgtttgtcat tttcattcgg tgacattctc tcccatgaca cccagaaggg gcagaagaac 180
cacatttttc atttatagat gtttgcattc tttgtattaa aattattttg aaggggttgc 240
ctcattggat ggcttttttt tttttcctcc agggagaagg ggagaaatgt acttggaaat 300
taatgtatgt ttacatctct ttgcaaattc ctgtacatag agatatattt ttttaagtgtg 360
aatgtaacaa catactgtga a                                     381
```

<210> 311

<211> 538

<212> DNA

<213> Homo sapiens

<400> 311

```
tttgaattta caccaagaac ttctcaataa aagaaaatca tgaatgctcc acaatttcaa 60
cataccacaa gagaagttaa tttcttaaca ttgtgttcta tgattatttg taagaccttc 120
accaagttct gatatctttt aaagacatag ttcaaaattg cttttgaaaa tctgtattct 180
tgaaaatatc cttgttgtgt attaggtttt taaataccag cttaaaggatt acctcactga 240
gtcatcagta ccttcctatt cagctcccca agatgatgtg tttttgctta ccctaagaga 300
ggttttcttc ttatttttag ataattcaag tgcttagata aattatgttt tctttaagtg 360
tttatggtaa actcttttaa agaaaattta atatgttata gctgaatctt tttggtaact 420
ttaaatcttt atcatagact ctgtacatat gttcaaatta gctgcttgcc tgatgtgtgt 480
atcatcgggtg ggatgacaga acaaacatat ttatgatcat gaataatgtg ctttgttaa 538
```

<210> 312

<211> 176

<212> DNA

<213> Homo sapiens

<400> 312

```
ggaggagcag ctgagagata gggtcagtga atgcggttca gcctgctacc tctcctgtct 60
tcatagaacc attgccttag aattattgta tgacacgttt tttgttggtt aagctgtaag 120
gttttgttct ttgtgaacat gggatatttg aggggagggg ggagggagta gggaag 176
```

<210> 313

<211> 396

<212> DNA

<213> Homo sapiens

<400> 313

```
ccagcaccce caggccctgg gggacctggg ttctcagact gccaaagaag ccttgccatc 60
tggcgctccc atggctcttg caacatctcc ccttcgtttt tgaggggggc atgccggggg 120
agccaccagc cctcactggt gttcggagga gagtcaggaa gggccaagca cgacaaagca 180
gaaacatcgg atttggggaa cgcgtgtcaa tcccttggtc cgcagggtg ggaggagag 240
actgttctgt tccttggtga actgtgttgc tgaaagacta cctcgttctt gtcttgatgt 300
gtcacggggg caactgcctg ggggcgggga tgggggcagg gtggaagcgg ctccccattt 360
tataccaaag gtgctacatc tatgtgatgg gtgggg                                     396
```

<210> 314

<211> 311

<212> DNA

<213> Homo sapiens

<400> 314

```
cctcaacatc ctcagagagg actggaagcc agtccttacg ataaactcca taatttatgg 60
cctgcagtat ctcttcttgg agcccaaccc cgaggaccca ctgaacaagg aggccgcaga 120
ggtcctgcag aacaaccggc ggctgtttga gcagaacgtg cagcgctcca tgcgggggtg 180
ctacatcggc tccacctact ttgagcgctg cctgaaatag gggtggcgca taccacccc 240
cgccacggcc acaagccctg gcatcccctg caaatattta ttggggggcca tgggtagggg 300
tttggggggc g                                     311
```

<210> 315

<211> 336

<212> DNA

<213> Homo sapiens

<400> 315

```
tttagaacat ggttatcatc caagactact ctaccctgca acattgaact cccaagagca 60
aatccacatt cctcttgagt tctgcagctt ctgtgtaaat agggcagctg tctgtctatgc 120
cgtagaatca catgatctga ggaccattca tggagctgc taaatagcct agtctgggga 180
gtcttccata aagttttgca tggagcaaac aaacaggatt aaactagggt tgggttccttc 240
agccctctaa aagcataggg cttagcctgc aggccttcctt gggctttctc tgtgtgtgta 300
gttttgtaaa cactatagca tctgttaaga tccagt                                     336
```

<210> 316

<211> 436

<212> DNA

<213> Homo sapiens

<400> 316

```
aacatgggtct gcgtgcctta agagagacgc ttctctgcaga acaggacctg actacaaaga 60
atgtttccat tggaaattgtt ggtaaagact tggagtttac aatctatgat gatgatgatg 120
tgtctccatt cctggaaggt cttgaagaaa gaccacagag aaaggcacag cctgctcaac 180
ctgctgatga acctgcagaa aaggctgatg aaccaatgga acattaagtg ataagccagt 240
ctatatatgt attatcaaat atgtaagaat acaggcacca catactgatg acaataatct 300
atactttgaa caaaagttg cagagtgggtg gaatgctatg ttttaggaat cagtccagat 360
gtgagttttt tccaagcaac ctcaactgaaa cctatataat ggaatacatt tttctttgaa 420
agggtctgta taatca                                     436
```

<210> 317

<211> 196

<212> DNA

<213> Homo sapiens

<400> 317

```
tattccttgt gaagatgata tactatTTTT gttaagcgtg tctgtattta tgtgtgagga 60
gctgctggct tgcagtgcgc gtgcacgtgg agagctgggt cccggagatt ggacggcctg 120
atgctccctc cctgcccctg gtccagggaa gctggccgag ggtcctggct cctgaggggc 180
atctgcccct ccccca                                     196
```

<210> 318

<211> 381

<212> DNA

<213> Homo sapiens

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<221> misc feature

$$\langle 223 \rangle \quad n = A, T, C \text{ or } G$$

gacgcttnnng	ccgtaacgat	gatcggagac	atcctgctgt	tcgggacgtt	gctgatgaat	60
gcgggggcgg	tgtctgaactt	taagctgaaa	aagaaggaca	cncagggctt	tggggaggag	120
tcnaggggagc	ccaacacagg	tgacaacatc	cgggaaattct	tgtctancct	cagatacttt	180
cnaatcttca	tencctgtg	gaacatcttc	atgatgttct	gcattgattgt	gctgntcggc	240
tcttgaatcc	cancgatgaa	accannaact	cactttcccg	ggatgccgan	tctccattcc	300
tccattctctg	atgacttcaa	naatgttttt	gaccaaaaaa	ccgacaacct	tcccagaaag	360
tccaagctcg	tgtgtggngg	a				381

<211> 506

<213> Homo sapiens

ctaagcttta	cgaatggggg	gacaacttat	gataaaaact	agagctagt	aattagccta	60
tttgtaaata	cctttggtat	aattgatagg	atacatcttg	gacatggaat	tgtaagcca	120
cctctgagca	gtgtatgtca	ggacttggtc	attaggttgg	cagcagaggg	gcagaaggaa	180
ttatacaggt	agagatgtat	gcagatgtgt	ccatatatgt	ccataattac	attttgatag	240
ccattgatgt	atgcatactc	tggtctgact	ataagaacac	attaattcaa	tggaaataca	300
ctttgcta	attttaaatg	tatagatctg	ctaatagaatt	ctcttaaaaa	catactgtat	360
tctgttgctg	tgtgtttcat	tttaaatgga	gcattaaggg	aatgcagcat	ttaaatcaga	420
actctgccaa	tgcttttata	tagaggcgtg	ttgccatttt	tgtcttatat	gaaatttctg	480
tcccaagaaa	ggcaggatta	catctt				506

<211> 351

<213> Homo sapiens

ctgacctgca	ggacgaaacc	atgaagagcc	tgatccttct	tgccatcctg	gccgccttag	60
cggtagtaac	tttgtgttat	gaatcacatg	aaagcatgga	atcttatgaa	cttaatccct	120
tcattaacag	gagaaatgca	aataccttca	tatcccctca	gcagagatgg	agagctaaag	180
tccaagagag	gatccgagaa	cgctctaagc	ctgtccacga	gctcaatagg	gaagcctgtg	240
atgactacag	actttgcgaa	cgctacgcca	tggtttatgg	atacaatgct	gcctataatc	300
gctacttcag	gaagcgcqga	gggaccaaat	qagactgagg	gaagaaaaaa	a	351

<211> 421

<213> Homo sapiens

ctcggaggcg ttcagctgct tcaagatgaa gctgaacatc tccttcccag ccaactggctg 60  
ccagaaactc attgaagtgg acgatgaacg caaacttcgt actttctatg agaagcgtat 120  
ggccacagaa gttgctgctg acgctctggg tgaagaatgg aagggttatg tgggtccgaat 180  
caqtggtggg aacgacaaac aaggtttccc catgaagcag ggtgtcttga cccatggccg 240

```

tgtccgcctg ctactgagta aggggcattc ctgttacaga ccaaggagaa ctggagaaa 300
aaagagaaaa tcagttcgtg gttgcattgt ggatgcaa atctgagcgttc tcaacttggt 360
tattgtaaaa aaaggagaga aggatattcc tggactgact gatactacag tgccctgcgcg 420
c 421

```

```

<210> 322
<211> 521
<212> DNA
<213> Homo sapiens

```

```

<400> 322
agcagctctc ctgccacagc tcctcacccc ctgaaaatgt tcgcctgctc caagtttgtc 60
tccactccct ccttgggtcaa gagcacctca cagctgctga gccgtccgct atctgcagtg 120
gtgctgaaac gaccggagat actgacagat gagagcctca gcagcttggc agtctcatgt 180
ccccttacct cacttgcttc tagccgcagc ttccaaacca gcgccatttc aaggacatc 240
gacacagcag ccaagtcat tggagctggg gctgccacag ttgggggtggc tgggttctggg 300
gctgggattg gaactgtgtt tgggagcctc atcattggtt atgccaggaa cccttctctg 360
aagcaacagc tcttctccta cgccattctg ggttttggcc tctcgagggc catggggctc 420
ttttgtctga tggtagcctt tctcctctc tttgccatgt gaaggagccg tctccacctc 480
ccatagttct cccgcgtctg gttggccccg tgtgttcctt t 521

```

```

<210> 323
<211> 435
<212> DNA
<213> Homo sapiens

```

```

<400> 323
ccgaggtcgc acgcgtgaga cttctccgcc gcagacgccg ccgcgatgcg ctacgtcgcc 60
tctactctgc tggtgcccct agggggcaac tcctcccca gcgccaagga catcaagaag 120
atcttggaca gcgtgggtat cgaggcggac gacgaccggc tcaacaaggt tatcagtgag 180
ctgaatggaa aaaacattga agacgtcatt gccagggtta ttggcaagct tgccagtgt 240
cctgctggtg gggctgtagc cgtctctgct gcccagggt ctgcagcccc tgcctgctgg 300
tctgccccct ctgcagcaga ggagaagaaa gatgagaaga aggaggagtc tgaagagtca 360
gatgatgaca tgggatttgg cttttttgat taaattcctg ctcccctgca aataaagcct 420
ttttacacat ctcaa 435

```

```

<210> 324
<211> 521
<212> DNA
<213> Homo sapiens

```

```

<400> 324
aggagatcga ctttcggtgc ccgcaagacc agggctggaa cgcagagatc acgtgcaga 60
tggtgcagta caagaatcgt caggccatcc tggcgtgcaa atccacgcgg cagaagcagc 120
agcacttggt ccagcagcag cccccctcgc agccgcagcc gcagccgcag ctccagcccc 180
aaccaccagc tcagcctcag ccgcaacccc agccccaatc acaaccccag cctcagcccc 240
aaccacaagc tcagccccag cagctccacc cgtatccgca tccacatcca catccacact 300
ctcatcctca ctgcaccca caccctcacc cgcaccgca tccgcaccaa ataccgcacc 360
cacaccaca gccgcactcg cagccgcacg ggcaccggt tctccgcagc acctccaaact 420
ctgcctgaaa ggggcagctc ccgggcaaga caaggttttg aggacttgag gaagtgggac 480
gagcacattt ctattgtctt cacttgatc aaaagcaaaa c 521

```

```

<210> 325
<211> 451

```

<212> DNA  
<213> Homo sapiens

<400> 325  
attttcattt ccattaacct ggaagctttc atgaatatc tcttctttta aaacatttta 60  
acattattta aacagaaaaa gatgggctct ttctgggttag ttgttacatg atagcagaga 120  
tatttttact tagattactt tgggaatgag agattgttgt cttgaactct ggcactgtac 180  
agtgaatgtg tctgtagttg tgtagttttg cattaagcat gtataacatt caagtatgtc 240  
atccaaataa gaggcataata cattgaattg tttttaatcc tctgacaagt tgactcttcg 300  
acccccaccc ccaccaaga cattttaata gtaaataagag agagagagaa gagttaatga 360  
acatgaggta gtgttcact ggcaggatga cttttcaata gctcaaatca atttcagtgc 420  
ctttatcact tgaattatta acttaatttg a 451

<210> 326  
<211> 421  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 296  
<223> n = A,T,C or G

<400> 326  
cgcggtcgta agggctgagg atttttggtc cgcacgctcc tgctcctgac tcaccgctgt 60  
tcgctctcgc cgaggaacaa gtcggtcagg aagcccgcgc gcaacagcca tggtttttaa 120  
ggataccgga aaaacacccg tggagccgga ggtggcaatt caccgaattc gaatcacct 180  
aacaagccgc aacgtaaaat ccttggaata ggtgtgtgct gacttgataa gaggcgcaaa 240  
agaaaagaat ctcaaagtga aaggaccagt tcgaatgcct accaagactt tgagantcac 300  
tacaagaaaa actccttggt gtgaagggtc taagacgtgg gatcggttcc agatgagaat 360  
tcacaagcga ctcatgtact tgcacagctc ttctgagatt gttaagcaga ttacttccat 420  
c 421

<210> 327  
<211> 456  
<212> DNA  
<213> Homo sapiens

<400> 327  
atcttgacga ggctgcgggtg tctgctgcta ttctccgagc ttcgcaatgc cgctaagga 60  
cgacaagaag aagaaggacg ctggaaagtc ggccaagaaa gacaaagacc cagtgaacaa 120  
atccgggggc aaggccaaaa agaagaagtg gtccaaaggc aaagtctcggg acaagctcaa 180  
taacttagtc ttgtttgaca aagctaccta tgataaaactc tgtaagggaag ttcccaacta 240  
taaacttata accccagctg tggctctctga gagactgaag attcgaggct ccttggccag 300  
ggcagccctt caggagctcc ttagtaaaagg acttatcaaa ctgggttcaa agcacagagc 360  
tcaagtaatt tacaccagaa ataccaaggg tggagatgct ccagctgctg gtgaagatgc 420  
atgaataggc ccaaccagct gtacatttgg aaaaat 456

<210> 328  
<211> 471  
<212> DNA  
<213> Homo sapiens

<400> 328

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gtggaagtga catcgtcttt aaaccctgcg tggcaatccc tgacgcaccg ccgtgatgcc 60
caggggaagac agggcgacct ggaagtccaa ctacttcctt aagatcatcc aactattgga 120
tgattatccg aaatgtttca ttgtgggagc agacaatgtg ggctccaagc agatgcagca 180
gatccgcatg tcccttcgcg ggaaggctgt ggtgctgatg ggcaagaaca ccatgatgcg 240
caaggccatc cgagggcacc tggaaaacaa cccagctctg gagaaactgc tgcctcatat 300
cegggggaat gtgggctttg tgttcaccaa ggaggacctc actgagatca gggacatgtt 360
gctggccaat aagggtgccg ctgctgcccg tgctggtgcc attgccccat gtgaagtca 420
tgtgccagcc cagaacactg gtctcgggcc cgagaagacc tcctttttcc a 471

```

<210> 329

<211> 278

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 154, 204

<223> n = A,T,C or G

<400> 329

```

gtttaaactt aagcttggtg ccgagctcgg atccactagt ccagtgtggt ggaattctag 60
aaattgagat gcccccccag gccagcaaat gtcccttttt gttcaaagtc tatttttatt 120
ccttgatatt tttctttttt tttttttttt ttgnggatgg ggacttgtga atttttctaa 180
aggtgctatt taacatggga gganagcgtg tgcggtcca gccagcccg ctgctcactt 240
tccaccctct ctccacctgc ctctggcttc tcaggcct 278

```

<210> 330

<211> 338

<212> DNA

<213> Homo sapiens

<400> 330

```

ctcaggcttc aacatcgaat acgcccagcg ccccttcgcc ctattcttca tagccgaata 60
cacaaacatt attataataa acaccctcac cactacaatc ttctaggaa caacatatga 120
cgcactctcc cctgaactct acacaacata ttttgtcacc aagaccctac ttctaaccct 180
cctgttctta tgaattcgaa cagcataccc ccgattccgc tacgaccaac tcatacacct 240
cctatgaaaa aacttcctac cactcaccct agcattactt atatgatatg tctccatacc 300
cattacaatc tccagcatc cccctcaaac ctaaaaaa 338

```

<210> 331

<211> 2820

<212> DNA

<213> Homo sapiens

<400> 331

```

tggcaaaatc ctggagccag aagaaaggac agcagcattg atcaatctta cagctaacat 60
gttgtacctg gaaaacaatg cccagactca atttagttag ccacagtaca cgaacctggg 120
gtcctgaac agcatggacc agcagattcg gaacggctcc tcgtccacca gtccctataa 180
cacagaccac gcgcagaaca ggcgcacggc gccctcgccc tacgcacagc ccagccccac 240
cttcgatgct ctctctccat caccgcctat cccctccaac accgactacc caggcccgca 300
cagttccgac gtgtccttcc agcagtcgag caccgccaag tcggccacct ggacgtattc 360
cactgaactg aagaaactct actgccaaat tgcaaagaca tgccccatcc agatcaaggt 420
gatgacccca cctcctcagg gagctgttat ccgcgccatg cctgtctaca aaaaagctga 480
gcacgtcagc gaggtggtga agcgggtgcc caaccatgag ctgagccgtg agttcaacga 540

```

```

gggacagatt gccctccta gtcatttgat tgcagtagag gggaacagcc atgcccagta 600
tgtagaagat cccatcacag gaagacagag tgtgctggta ccttatgagc cccccaggt 660
tggcactgaa ttcacgacag tcttgtacaa tttoatgtgt aacagcagtt gtgttggagg 720
gatgaaccgc cgtccaattt taatcattgt tactctggaa accagagatg ggcaagtcct 780
gggccgacgc tgctttgagg cccgatctg tgcttgccca ggaagagaca ggaaggcgga 840
tgaagatagc atcagaaagc agcaagtffc ggacagtaca aagaacggtg atggtacgaa 900
gcgcccgttt cgtcagaaca cacatggtat ccagatgaca tccatcaaga aacgaagatc 960
cccagatgat gaactgttat acttaccagt gagggggcgt gagacttatg aaatgctgtt 1020
gaagatcaaa gaggccctgg aactcatgca gtaccttcct cagcacacaa ttgaaacgta 1080
caggcaacag caacagcagc agcaccagca cttacttcag aaacagacct caatacagtc 1140
tccatcttca tatggtaaca gctccccacc tctgaacaaa atgaacagca tgaacaagct 1200
gccttctgtg agccagctta tcaacctca gcagcgcaac gccctcactc ctacaacct 1260
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gattgagcat tactccatgg atgatctggc aagtctgaaa atccctgagc aatttcgaca 1560
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tctcctgcgg accccaagca gtgcctctac agtcagtgtg ggctccagtg agaccgggg 1680
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caaagaggag ggggagtgag cctcaccatg tgagctcttc ctatccctct cctaactgcc 1860
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tcttgtctga tttcttaggg gaaggagaag taagaggcta cctcttacct aacatctgac 1980
ctggcatcta attctgattc tggctttaag ccttcaaaac tatagcttgc agaactgtag 2040
ctgccatggc taggtagaag tgagcaaaaa agagttgggt gtctccttaa gctgcagaga 2100
tttctcattg acttttataa agcatgttca cccttatagt ctaagactat atatataaat 2160
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gatatgtatt cttttctcag tgttggtata ttttatatta ctgacatttc ttctagtgat 2520
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taccttatct tacaatgttg attgggaaaa catttgctgc ccattacaga ggtattaaaa 2760
ctaaatttca ctactagatt gactaactca aatacacatt tgctactgtt gtaagaattc 2820

```

<210> 332

<211> 2270

<212> DNA

<213> Homo sapiens

<400> 332

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tcgttgatat caaagacagt tgaaggaaat gaattttgaa acttcacggt gtgccaccct 60
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aaagaaagtt attaccgac caccatgtcc cagagcacac agacaaatga attcctcagt 180
ccagaggttt tccagcatat ctgggatttt ctggaacagc ctatatgttc agttcagccc 240
attgacttga actttgtgga tgaaccatca gaagatgggt cgacaaacaa gattgagatt 300
agcatggact gtatccgcat gcaggactcg gacctgagtg accccatgtg gccacgtac 360
acgaacctgg ggctcctgaa cagcatggac cagcagattc agaacggctc ctcgccacc 420
agtcctata acacagacca cgcgcagaac agcgtcacgg cgccctcgcc ctacgcacag 480

```



```
<210> 333
<211> 2816
<212> DNA
<213> Homo sapiens
```

<400> 333						
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aaagaaagtt	attaccgatc	caccatgtcc	cagagcacac	agacaaatga	attcctcagt	180
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ccaccccagc	ttggcactga	attcacgcaca	gtcttgtaca	atttcattgtg	taacagcagt	960
tgtgttggag	gqatgaaccg	ccgtccaatt	ttaatcattg	ttactctgga	aaccagaqat	1020

```

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gatggtacga agcgcccgtt tcgtcagaac acacatggta tccagatgac atccatcaag 1200
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ttacaagaaa ggatgttttc tgcagatttt gtatccttag accggccatt ggtgggtgag 1740
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gaaaggggca ttaagatggt tattggaacc cttttctgtc ttcttctggt gtttttctaa 1860
aattcacagg gaagcttttg agcagggtct aaacttaaga tgtcttttta agaaaaggag 1920
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<211> 586

<212> PRT

<213> Homo sapiens

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 35          40          45
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 50          55          60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
 65          70          75          80
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Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Gln Gly
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    50                      55                      60  
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 Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn

				85				90					95				
Thr	Asp	His	Ala	Gln	Asn	Ser	Val	Thr	Ala	Pro	Ser	Pro	Tyr	Ala	Gln		
			100					105					110				
Pro	Ser	Ser	Thr	Phe	Asp	Ala	Leu	Ser	Pro	Ser	Pro	Ala	Ile	Pro	Ser		
		115					120					125					
Asn	Thr	Asp	Tyr	Pro	Gly	Pro	His	Ser	Phe	Asp	Val	Ser	Phe	Gln	Gln		
	130				135						140						
Ser	Ser	Thr	Ala	Lys	Ser	Ala	Thr	Trp	Thr	Tyr	Ser	Thr	Glu	Leu	Lys		
145				150						155					160		
Lys	Leu	Tyr	Cys	Gln	Ile	Ala	Lys	Thr	Cys	Pro	Ile	Gln	Ile	Lys	Val		
			165					170						175			
Met	Thr	Pro	Pro	Pro	Gln	Gly	Ala	Val	Ile	Arg	Ala	Met	Pro	Val	Tyr		
		180						185					190				
Lys	Lys	Ala	Glu	His	Val	Thr	Glu	Val	Val	Lys	Arg	Cys	Pro	Asn	His		
	195						200					205					
Glu	Leu	Ser	Arg	Glu	Phe	Asn	Glu	Gly	Gln	Ile	Ala	Pro	Pro	Ser	His		
	210					215					220						
Leu	Ile	Arg	Val	Glu	Gly	Asn	Ser	His	Ala	Gln	Tyr	Val	Glu	Asp	Pro		
225					230					235					240		
Ile	Thr	Gly	Arg	Gln	Ser	Val	Leu	Val	Pro	Tyr	Glu	Pro	Pro	Gln	Val		
			245						250					255			
Gly	Thr	Glu	Phe	Thr	Thr	Val	Leu	Tyr	Asn	Phe	Met	Cys	Asn	Ser	Ser		
		260					265						270				
Cys	Val	Gly	Gly	Met	Asn	Arg	Arg	Pro	Ile	Leu	Ile	Ile	Val	Thr	Leu		
	275						280						285				
Glu	Thr	Arg	Asp	Gly	Gln	Val	Leu	Gly	Arg	Arg	Cys	Phe	Glu	Ala	Arg		
	290					295					300						
Ile	Cys	Ala	Cys	Pro	Gly	Arg	Asp	Arg	Lys	Ala	Asp	Glu	Asp	Ser	Ile		
305					310					315					320		
Arg	Lys	Gln	Gln	Val	Ser	Asp	Ser	Thr	Lys	Asn	Gly	Asp	Gly	Thr	Lys		
		325							330					335			
Arg	Pro	Phe	Arg	Gln	Asn	Thr	His	Gly	Ile	Gln	Met	Thr	Ser	Ile	Lys		
		340						345					350				
Lys	Arg	Arg	Ser	Pro	Asp	Asp	Glu	Leu	Leu	Tyr	Leu	Pro	Val	Arg	Gly		
	355						360					365					
Arg	Glu	Thr	Tyr	Glu	Met	Leu	Leu	Lys	Ile	Lys	Glu	Ser	Leu	Glu	Leu		
	370					375					380						
Met	Gln	Tyr	Leu	Pro	Gln	His	Thr	Ile	Glu	Thr	Tyr	Arg	Gln	Gln	Gln		
385					390					395					400		
Gln	Gln	Gln	His	Gln	His	Leu	Leu	Gln	Lys	Gln	Thr	Ser	Ile	Gln	Ser		
			405						410					415			
Pro	Ser	Ser	Tyr	Gly	Asn	Ser	Ser	Pro	Pro	Leu	Asn	Lys	Met	Asn	Ser		
		420						425					430				
Met	Asn	Lys	Leu	Pro	Ser	Val	Ser	Gln	Leu	Ile	Asn	Pro	Gln	Gln	Arg		
	435						440					445					
Asn	Ala	Leu	Thr	Pro	Thr	Thr	Ile	Pro	Asp	Gly	Met	Gly	Ala	Asn	Ile		
	450					455					460						
Pro	Met	Met	Gly	Thr	His	Met	Pro	Met	Ala	Gly	Asp	Met	Asn	Gly	Leu		
465					470					475					480		
Ser	Pro	Thr	Gln	Ala	Leu	Pro	Pro	Pro	Leu	Ser	Met	Pro	Ser	Thr	Ser		
			485						490					495			
His	Cys	Thr	Pro	Pro	Pro	Pro	Tyr	Pro	Thr	Asp	Cys	Ser	Ile	Val	Gly		
			500					505					510				
Phe	Leu	Ala	Arg	Leu	Gly	Cys	Ser	Ser	Cys	Leu	Asp	Tyr	Phe	Thr	Thr		



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          515          520          525
Gln Gly Leu Thr Thr Ile Tyr Gln Ile Glu His Tyr Ser Met Asp Asp
   530          535          540
Leu Ala Ser Leu Lys Ile Pro Glu Gln Phe Arg His Ala Ile Trp Lys
545          550          555          560
Gly Ile Leu Asp His Arg Gln Leu His Glu Phe Ser Ser Pro Ser His
          565          570          575
Leu Leu Arg Thr Pro Ser Ser Ala Ser Thr Val Ser Val Gly Ser Ser
          580          585          590
Glu Thr Arg Gly Glu Arg Val Ile Asp Ala Val Arg Phe Thr Leu Arg
          595          600          605
Gln Thr Ile Ser Phe Pro Pro Arg Asp Glu Trp Asn Asp Phe Asn Phe
        610          615          620
Asp Met Asp Ala Arg Arg Asn Lys Gln Gln Arg Ile Lys Glu Glu Gly
625          630          635          640
Glu

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<210> 340
<211> 448
<212> PRT
<213> Homo sapiens

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<400> 340
Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
 1          5          10          15
Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro
          20          25          30
Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn
          35          40          45
Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu
          50          55          60
Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser
65          70          75          80
Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn
          85          90          95
Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln
          100          105          110
Pro Ser Ser Thr Phe Asp Ala Leu Ser Pro Ser Pro Ala Ile Pro Ser
          115          120          125
Asn Thr Asp Tyr Pro Gly Pro His Ser Phe Asp Val Ser Phe Gln Gln
          130          135          140
Ser Ser Thr Ala Lys Ser Ala Thr Trp Thr Tyr Ser Thr Glu Leu Lys
145          150          155          160
Lys Leu Tyr Cys Gln Ile Ala Lys Thr Cys Pro Ile Gln Ile Lys Val
          165          170          175
Met Thr Pro Pro Pro Gln Gly Ala Val Ile Arg Ala Met Pro Val Tyr
          180          185          190
Lys Lys Ala Glu His Val Thr Glu Val Val Lys Arg Cys Pro Asn His
          195          200          205
Glu Leu Ser Arg Glu Phe Asn Glu Gly Gln Ile Ala Pro Pro Ser His
          210          215          220
Leu Ile Arg Val Glu Gly Asn Ser His Ala Gln Tyr Val Glu Asp Pro

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225                      230                      235                      240  
 Ile Thr Gly Arg Gln Ser Val Leu Val Pro Tyr Glu Pro Pro Gln Val  
                                  245                      250                      255  
 Gly Thr Glu Phe Thr Thr Val Leu Tyr Asn Phe Met Cys Asn Ser Ser  
                                  260                      265                      270  
 Cys Val Gly Gly Met Asn Arg Arg Pro Ile Leu Ile Ile Val Thr Leu  
                                  275                      280                      285  
 Glu Thr Arg Asp Gly Gln Val Leu Gly Arg Arg Cys Phe Glu Ala Arg  
                                  290                      295                      300  
 Ile Cys Ala Cys Pro Gly Arg Asp Arg Lys Ala Asp Glu Asp Ser Ile  
 305                      310                      315                      320  
 Arg Lys Gln Gln Val Ser Asp Ser Thr Lys Asn Gly Asp Gly Thr Lys  
                                  325                      330                      335  
 Arg Pro Phe Arg Gln Asn Thr His Gly Ile Gln Met Thr Ser Ile Lys  
                                  340                      345                      350  
 Lys Arg Arg Ser Pro Asp Asp Glu Leu Leu Tyr Leu Pro Val Arg Gly  
                                  355                      360                      365  
 Arg Glu Thr Tyr Glu Met Leu Leu Lys Ile Lys Glu Ser Leu Glu Leu  
                                  370                      375                      380  
 Met Gln Tyr Leu Pro Gln His Thr Ile Glu Thr Tyr Arg Gln Gln Gln  
 385                      390                      395                      400  
 Gln Gln Gln His Gln His Leu Leu Gln Lys His Leu Leu Ser Ala Cys  
                                  405                      410                      415  
 Phe Arg Asn Glu Leu Val Glu Pro Arg Arg Glu Thr Pro Lys Gln Ser  
                                  420                      425                      430  
 Asp Val Phe Phe Arg His Ser Lys Pro Pro Asn Arg Ser Val Tyr Pro  
                                  435                      440                      445

<210> 341  
 <211> 356  
 <212> PRT  
 <213> Homo sapiens

<400> 341  
 Met Leu Tyr Leu Glu Asn Asn Ala Gln Thr Gln Phe Ser Glu Pro Gln  
 1                      5                      10                      15  
 Tyr Thr Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn  
                                  20                      25                      30  
 Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser  
                                  35                      40                      45  
 Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala  
                                  50                      55                      60  
 Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro  
 65                      70                      75                      80  
 His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala  
                                  85                      90                      95  
 Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala  
                                  100                      105                      110  
 Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Pro Gln Gly  
                                  115                      120                      125  
 Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr  
                                  130                      135                      140  
 Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn

145					150					155				160	
Glu	Gly	Gln	Ile	Ala	Pro	Pro	Ser	His	Leu	Ile	Arg	Val	Glu	Gly	Asn
				165					170					175	
Ser	His	Ala	Gln	Tyr	Val	Glu	Asp	Pro	Ile	Thr	Gly	Arg	Gln	Ser	Val
			180					185					190		
Leu	Val	Pro	Tyr	Glu	Pro	Pro	Gln	Val	Gly	Thr	Glu	Phe	Thr	Thr	Val
		195					200				205				
Leu	Tyr	Asn	Phe	Met	Cys	Asn	Ser	Ser	Cys	Val	Gly	Gly	Met	Asn	Arg
	210					215					220				
Arg	Pro	Ile	Leu	Ile	Ile	Val	Thr	Leu	Glu	Thr	Arg	Asp	Gly	Gln	Val
225					230					235					240
Leu	Gly	Arg	Arg	Cys	Phe	Glu	Ala	Arg	Ile	Cys	Ala	Cys	Pro	Gly	Arg
				245				250						255	
Asp	Arg	Lys	Ala	Asp	Glu	Asp	Ser	Ile	Arg	Lys	Gln	Gln	Val	Ser	Asp
			260				265						270		
Ser	Thr	Lys	Asn	Gly	Asp	Gly	Thr	Lys	Arg	Pro	Ser	Arg	Gln	Asn	Thr
		275					280					285			
His	Gly	Ile	Gln	Met	Thr	Ser	Ile	Lys	Lys	Arg	Arg	Ser	Pro	Asp	Asp
	290					295				300					
Glu	Leu	Leu	Tyr	Leu	Pro	Val	Arg	Gly	Arg	Glu	Thr	Tyr	Glu	Met	Leu
305					310				315						320
Leu	Lys	Ile	Lys	Glu	Ser	Leu	Glu	Leu	Met	Gln	Tyr	Leu	Pro	Gln	His
			325				330						335		
Thr	Ile	Glu	Thr	Tyr	Arg	Gln	Gln	Gln	Gln	Gln	Gln	His	Gln	His	Leu
		340				345						350			
Leu	Gln	Lys	Gln												
		355													

<210> 342  
 <211> 680  
 <212> PRT  
 <213> Homo sapiens

<400> 342  
 Met Asn Phe Glu Thr Ser Arg Cys Ala Thr Leu Gln Tyr Cys Pro Asp  
 1 5 10 15  
 Pro Tyr Ile Gln Arg Phe Val Glu Thr Pro Ala His Phe Ser Trp Lys  
 20 25 30  
 Glu Ser Tyr Tyr Arg Ser Thr Met Ser Gln Ser Thr Gln Thr Asn Glu  
 35 40 45  
 Phe Leu Ser Pro Glu Val Phe Gln His Ile Trp Asp Phe Leu Glu Gln  
 50 55 60  
 Pro Ile Cys Ser Val Gln Pro Ile Asp Leu Asn Phe Val Asp Glu Pro  
 65 70 75 80  
 Ser Glu Asp Gly Ala Thr Asn Lys Ile Glu Ile Ser Met Asp Cys Ile  
 85 90 95  
 Arg Met Gln Asp Ser Asp Leu Ser Asp Pro Met Trp Pro Gln Tyr Thr  
 100 105 110  
 Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn Gly Ser  
 115 120 125  
 Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser Val Thr  
 130 135 140  
 Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala Leu Ser



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          580                      585                      590
Phe Arg His Ala Ile Trp Lys Gly Ile Leu Asp His Arg Gln Leu His
          595                      600                      605
Glu Phe Ser Ser Pro Ser His Leu Leu Arg Thr Pro Ser Ser Ala Ser
          610                      615                      620
Thr Val Ser Val Gly Ser Ser Glu Thr Arg Gly Glu Arg Val Ile Asp
          625                      630                      635
Ala Val Arg Phe Thr Leu Arg Gln Thr Ile Ser Phe Pro Pro Arg Asp
          645                      650                      655
Glu Trp Asn Asp Phe Asn Phe Asp Met Asp Ala Arg Arg Asn Lys Gln
          660                      665                      670
Gln Arg Ile Lys Glu Glu Gly Glu
          675                      680

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<210> 343
<211> 461
<212> PRT
<213> Homo sapiens

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<400> 343
Met Leu Tyr Leu Glu Asn Asn Ala Gln Thr Gln Phe Ser Glu Pro Gln
  1          5          10          15
Tyr Thr Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn
          20          25          30
Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
          35          40          45
Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
          50          55          60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
          65          70          75          80
His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala
          85          90          95
Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
          100          105          110
Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Pro Gln Gly
          115          120          125
Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr
          130          135          140
Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn
          145          150          155          160
Glu Gly Gln Ile Ala Pro Pro Ser His Leu Ile Arg Val Glu Gly Asn
          165          170          175
Ser His Ala Gln Tyr Val Glu Asp Pro Ile Thr Gly Arg Gln Ser Val
          180          185          190
Leu Val Pro Tyr Glu Pro Pro Gln Val Gly Thr Glu Phe Thr Thr Val
          195          200          205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
          210          215          220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
          225          230          235          240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
          245          250          255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp

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<210> 344
<211> 516
<212> PRT
<213> Homo sapiens
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Met	Ser	Gln	Ser	Thr	Gln	Thr	Asn	Glu	Phe	Leu	Ser	Pro	Glu	Val	Phe
1				5					10					15	
Gln	His	Ile	Trp	Asp	Phe	Leu	Glu	Gln	Pro	Ile	Cys	Ser	Val	Gln	Pro
			20					25					30		
Ile	Asp	Leu	Asn	Phe	Val	Asp	Glu	Pro	Ser	Glu	Asp	Gly	Ala	Thr	Asn
		35					40					45			
Lys	Ile	Glu	Ile	Ser	Met	Asp	Cys	Ile	Arg	Met	Gln	Asp	Ser	Asp	Leu
	50					55					60				
Ser	Asp	Pro	Met	Trp	Pro	Gln	Tyr	Thr	Asn	Leu	Gly	Leu	Leu	Asn	Ser
65				70						75				80	
Met	Asp	Gln	Gln	Ile	Gln	Asn	Gly	Ser	Ser	Ser	Thr	Ser	Pro	Tyr	Asn
				85					90					95	
Thr	Asp	His	Ala	Gln	Asn	Ser	Val	Thr	Ala	Pro	Ser	Pro	Tyr	Ala	Gln
			100					105					110		
Pro	Ser	Ser	Thr	Phe	Asp	Ala	Leu	Ser	Pro	Ser	Pro	Ala	Ile	Pro	Ser
		115					120					125			
Asn	Thr	Asp	Tyr	Pro	Gly	Pro	His	Ser	Phe	Asp	Val	Ser	Phe	Gln	Gln
	130					135					140				
Ser	Ser	Thr	Ala	Lys	Ser	Ala	Thr	Trp	Thr	Tyr	Ser	Thr	Glu	Leu	Lys
145				150						155				160	
Lys	Leu	Tyr	Cys	Gln	Ile	Ala	Lys	Thr	Cys	Pro	Ile	Gln	Ile	Lys	Val

gcgccctcatt gccactgcag tgactaaagc tgggaagacg ctggtcagtt cacctgcccc 60

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actggttgtt ttttaaacaa attctgatac aggcgacatc ctcaactgacc gagcaaagat 120
tgacatttcgt atcatcactg tgcaccattg gcttctaggg actccagtg ggtaggagaa 180
ggaggtctga aaccctcgca gagggatctt gccctcattc tttgggtctg aaacactggc 240
agtcgttgga aacaggactc agggataaac cagcgcaatg gattggggga cgctgcacac 300
tttcatcggg ggtgtcaaca aacactccac cagcatcggg aaggtgtgga tcacagtcac 360
ctttattttc cgagtcataa tcctagtggg ggctgcccag gaagtgtggg gtgacgagca 420
agaggacttc gtctgcaaca cactgcaacc gggatgcaaa aatgtgtgct atgaccactt 480
tttcccgggtg tcccacatcc ggctgtgggc cctccagctg atcttcgtct ccaccccagc 540
gctgctgggtg gccatgcatg tggcctacta caggcacgaa accactcgca agttcaggcg 600
aggagagaag aggaatgatt tcaaagacat agaggacatt aaaaagcaca aggttcggat 660
agaggggtcg ctgtggtgga cgtacaccag cagcatcttt ttccgaatca tctttgaagc 720
agcctttatg tatgtgtttt acttccttta caatgggtac cacctgccct ggggtgtgaa 780
atgtgggatt agcccctgcc ccaaccttgt tgactgcttt atttctaggg caacagagaa 840
gaccgtgttt accattttta tgatttctgc gtctgtgatt tgcattgctgc ttaacgtggc 900
agagttgtgc tacctgctgc tgaaagtgtg ttttaggaga tcaaagagag cacagacgca 960
aaaaaatcac ccaatcatg ccctaaagga gagtaagcag aatgaaatga atgagctgat 1020
ttcagatagt ggtcaaaatg caatcacagg tttccaagc taaacatttc aaggtaaaat 1080
gtagctgctg cataaggaga cttctgtctt ctccagaagg caataccaac ctgaaagtgc 1140
cttctgtagc ctgaagagtt tgtaaagtac tttcataata aatagacact tgagttaact 1200
ttttgttaga tacttgctcc attcatacac aacgtaatca aatatgtggg ccatctctga 1260
aaacaagaga ctgcttgaca aaggagcatt gcagtcactt tgacagggtc cttttaagtg 1320
gactctctga caaagtgggt actttctgaa aatttatata actgttggtg ataaggaaca 1380
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agttccgact ttgaatttat ataaagtatt tttataatga ctgggtcttcc ttacctggaa 1500
aaacatgcca tgtaggtttt agaattacac cacaagtatc taaatttcca acttacaaag 1560
ggtcctatct tgtaaattat gttttgcatt gtctgtggc aaatttgtga actgtcatga 1620
tacgcttaag gtgggaaagt gttcattgca caatatattt ttactgcttt ctgaatgtag 1680
acggaacagt gtggaagcag aaggcttttt taactcatcc gtttgccga tegtgcaga 1740
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<210> 346
<211> 261
<212> PRT
<213> Homo sapiens

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<400> 346
Met Asp Trp Gly Thr Leu His Thr Phe Ile Gly Gly Val Asn Lys His
 1             5             10             15
Ser Thr Ser Ile Gly Lys Val Trp Ile Thr Val Ile Phe Ile Phe Arg
      20             25             30
Val Met Ile Leu Val Val Ala Ala Gln Glu Val Trp Gly Asp Glu Gln
      35             40             45
Glu Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
      50             55             60
Tyr Asp His Phe Phe Pro Val Ser His Ile Arg Leu Trp Ala Leu Gln
      65             70             75             80
Leu Ile Phe Val Ser Thr Pro Ala Leu Leu Val Ala Met His Val Ala
      85             90             95
Tyr Tyr Arg His Glu Thr Thr Arg Lys Phe Arg Arg Gly Glu Lys Arg
      100            105            110
Asn Asp Phe Lys Asp Ile Glu Asp Ile Lys Lys His Lys Val Arg Ile
      115            120            125
Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser Ser Ile Phe Phe Arg Ile

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130		135		140
Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Phe Leu Tyr Asn Gly				
145		150		155
Tyr His Leu Pro Trp Val Leu Lys Cys Gly Ile Asp Pro Cys Pro Asn				
	165		170	175
Leu Val Asp Cys Phe Ile Ser Arg Pro Thr Glu Lys Thr Val Phe Thr				
	180		185	190
Ile Phe Met Ile Ser Ala Ser Val Ile Cys Met Leu Leu Asn Val Ala				
	195		200	205
Glu Leu Cys Tyr Leu Leu Leu Lys Val Cys Phe Arg Arg Ser Lys Arg				
	210		215	220
Ala Gln Thr Gln Lys Asn His Pro Asn His Ala Leu Lys Glu Ser Lys				
225		230		235
Gln Asn Glu Met Asn Glu Leu Ile Ser Asp Ser Gly Gln Asn Ala Ile				
	245		250	255
Thr Gly Phe Pro Ser				
260				

<210> 347  
 <211> 1740  
 <212> DNA  
 <213> Homo sapiens

<400> 347  
 atgaacaaac tgtatatcgg aaacctcagc gagaacgccg cccctcggga cctagaaagt 60  
 atcttcaagg acgccaagat cccggtgtcg ggaccttcc tggatgaagac tggctacgag 120  
 ttcgtggact gcccggacga gagctgggccc ctcaaggcca tcgaggcgct ttcaggtaaa 180  
 atagaactgc acgggaaacc catagaagtt gagcactcgg tcccaaaaag gcaaaggatt 240  
 cggaaacttc agatacgaaa tatccgcgct catttacagt gggagggtgct ggatagttaa 300  
 ctagtccagt atggagtggt ggagagctgt gagcaagtga acactgactc ggaaactgca 360  
 gttgtaaatg taacctatct cagtaaggac caagctagac aagcactaga caaactgaat 420  
 ggatttcagt tagagaattt caccttgaaa gtagcctata tccctgatga aacggccgcc 480  
 cagcaaaacc ccttcgacga gcccggaggt cgccgggggc ttgggcagag gggctcctca 540  
 aggcaggggt ctccaggatc cgtatccaag cagaaaccat gtgatttgcc tctgcgcctg 600  
 ctggttccca cccaatttgt tggagccatc ataggaaaag aaggtgccac cattcggaac 660  
 atcaccaaac agaccagtc taaaatcgat gtccaccgta aagaaaatgc gggggctgct 720  
 gagaagtcga ttactatcct ctctactcct gaaggcacct ctgcggttg taagtctatt 780  
 ctggagatta tgcataagga agctcaagat ataaaattca cagaagagat ccccttgaag 840  
 atttttagctc ataataactt tgttgagcgt cttatttgta aagaaggaag aaatcttaa 900  
 aaaattgagc aagacacaga cactaaaatc acgatatctc cattgcagga attgacgctg 960  
 tataatccag aacgcactat tacagttaaa ggcaatgttg agacatgtgc caaagctgag 1020  
 gaggagatca tgaagaaaat caggagatct tatgaaaatg atattgcttc tatgaatctt 1080  
 caagcacatt taattcctgg attaaatctg aacgccttg gtctgttccc acccacttca 1140  
 gggatgccac ctcccacctc agggccccct tcagccatga ctctcccta cccgcagttt 1200  
 gagcaatcag aaacggagac tgttcactct tttatcccag ctctatcagt cgggtgccatc 1260  
 atcggaagc agggccagca catcaagcag ctttctcgct ttgctggagc ttcaattaag 1320  
 attgctccag cggaagcacc agatgctaaa gtgaggatgg tgattatcac tggaccacca 1380  
 gaggtcagt tcaaggctca gggaagaatt tatggaaaaa ttaaagaaga aaactttgtt 1440  
 agtcctaaag aagaggtgaa acttgaagct catatcagag tgccatcctt tgctgctggc 1500  
 agagttattg gaaaaggagg caaacgggtg aatgaacttc agaatttgtc aagtgcagaa 1560  
 gttgttgctc ctctgaccca gacacctgat gagaatgacc aagtgttgtt caaaataact 1620  
 ggtcacttct atgcttgcca ggttgcccag agaaaaattc aggaaattct gactcaggta 1680  
 aagcagcacc aacaacagaa ggctctgcaa agtggtgacc ctcagtcaag acggaagtaa 1740

130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260

<210> 348  
 <211> 579  
 <212> PRT  
 <213> Homo sapiens

<400> 348

Met	Asn	Lys	Leu	Tyr	Ile	Gly	Asn	Leu	Ser	Glu	Asn	Ala	Ala	Pro	Ser
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Asp	Leu	Glu	Ser	Ile	Phe	Lys	Asp	Ala	Lys	Ile	Pro	Val	Ser	Gly	Pro
			20					25					30		
Phe	Leu	Val	Lys	Thr	Gly	Tyr	Ala	Phe	Val	Asp	Cys	Pro	Asp	Glu	Ser
		35					40					45			
Trp	Ala	Leu	Lys	Ala	Ile	Glu	Ala	Leu	Ser	Gly	Lys	Ile	Glu	Leu	His
	50					55					60				
Gly	Lys	Pro	Ile	Glu	Val	Glu	His	Ser	Val	Pro	Lys	Arg	Gln	Arg	Ile
65				70						75				80	
Arg	Lys	Leu	Gln	Ile	Arg	Asn	Ile	Pro	Pro	His	Leu	Gln	Trp	Glu	Val
			85						90					95	
Leu	Asp	Ser	Leu	Leu	Val	Gln	Tyr	Gly	Val	Val	Glu	Ser	Cys	Glu	Gln
			100					105					110		
Val	Asn	Thr	Asp	Ser	Glu	Thr	Ala	Val	Val	Asn	Val	Thr	Tyr	Ser	Ser
	115						120					125			
Lys	Asp	Gln	Ala	Arg	Gln	Ala	Leu	Asp	Lys	Leu	Asn	Gly	Phe	Gln	Leu
	130					135					140				
Glu	Asn	Phe	Thr	Leu	Lys	Val	Ala	Tyr	Ile	Pro	Asp	Glu	Thr	Ala	Ala
145					150					155					160
Gln	Gln	Asn	Pro	Leu	Gln	Gln	Pro	Arg	Gly	Arg	Arg	Gly	Leu	Gly	Gln
				165					170					175	
Arg	Gly	Ser	Ser	Arg	Gln	Gly	Ser	Pro	Gly	Ser	Val	Ser	Lys	Gln	Lys
			180					185					190		
Pro	Cys	Asp	Leu	Pro	Leu	Arg	Leu	Leu	Val	Pro	Thr	Gln	Phe	Val	Gly
	195						200					205			
Ala	Ile	Ile	Gly	Lys	Glu	Gly	Ala	Thr	Ile	Arg	Asn	Ile	Thr	Lys	Gln
	210					215					220				
Thr	Gln	Ser	Lys	Ile	Asp	Val	His	Arg	Lys	Glu	Asn	Ala	Gly	Ala	Ala
225					230					235					240
Glu	Lys	Ser	Ile	Thr	Ile	Leu	Ser	Thr	Pro	Glu	Gly	Thr	Ser	Ala	Ala
			245						250					255	
Cys	Lys	Ser	Ile	Leu	Glu	Ile	Met	His	Lys	Glu	Ala	Gln	Asp	Ile	Lys
		260						265					270		
Phe	Thr	Glu	Glu	Ile	Pro	Leu	Lys	Ile	Leu	Ala	His	Asn	Asn	Phe	Val
	275						280					285			
Gly	Arg	Leu	Ile	Gly	Lys	Glu	Gly	Arg	Asn	Leu	Lys	Lys	Ile	Glu	Gln
	290					295					300				
Asp	Thr	Asp	Thr	Lys	Ile	Thr	Ile	Ser	Pro	Leu	Gln	Glu	Leu	Thr	Leu
305					310					315					320
Tyr	Asn	Pro	Glu	Arg	Thr	Ile	Thr	Val	Lys	Gly	Asn	Val	Glu	Thr	Cys
			325						330					335	
Ala	Lys	Ala	Glu	Glu	Glu	Ile	Met	Lys	Lys	Ile	Arg	Glu	Ser	Tyr	Glu
		340						345					350		
Asn	Asp	Ile	Ala	Ser	Met	Asn	Leu	Gln	Ala	His	Leu	Ile	Pro	Gly	Leu
	355						360						365		

Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro  
 370 375 380  
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe  
 385 390 395 400  
 Glu Gln Ser Glu Thr Glu Thr Val His Leu Phe Ile Pro Ala Leu Ser  
 405 410 415  
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser  
 420 425 430  
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp  
 435 440 445  
 Ala Lys Val Arg Met Val Ile Thr Gly Pro Pro Glu Ala Gln Phe  
 450 455 460  
 Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val  
 465 470 475 480  
 Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Ser  
 485 490 495  
 Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu  
 500 505 510  
 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr  
 515 520 525  
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr  
 530 535 540  
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val  
 545 550 555 560  
 Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser  
 565 570 575  
 Arg Arg Lys

<210> 349  
 <211> 207  
 <212> DNA  
 <213> Homo sapiens

<400> 349  
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 gctgcagcag cctccaccca gcctgaggat gacatcaata cacagaggaa gaagagtcag 120  
 gaaaagatga gagaagttac agactctcct ggcgcacccc gagagcttac cattcctcag 180  
 acttcttcac atggtgctaa cagattt 207

<210> 350  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 350  
 Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly  
 1 5 10 15  
 Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile  
 20 25 30  
 Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp  
 35 40 45  
 Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His

50  
Gly Ala Asn Arg Phe  
65

55

60

<210> 351  
<211> 1012  
<212> DNA  
<213> Homo sapiens

<400> 351  
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catcacacgg ccgcgtccga taacttccag ctgtcccagg gtgggcaggg attcgccatt 120  
ccgatcgggc aggcgatggc gatcgcgggc cagatcaagc tccccaccgt tcatatcggg 180  
cctaccgcct tcctcggctt ggggtgtgtc gacaacaacg gcaacggcgc acgagtccaa 240  
cgcggtggtc ggagcgctcc ggcggaagt ctcggcatct ccaccggcga cgtgatcacc 300  
gcgggtcgacg gcgctccgat caactcggcc accgcgatgg cggacgcgct taacgggcat 360  
catcccgggtg acgtcatctc ggtgacctgg caaaccaagt cgggcggcac gcgtacaggg 420  
aacgtgacat tggccgaggg acccccggcc gaattcatgg attgggggac gctgcacact 480  
ttcatcgggg gtgtcaacaa aactccacc agcatcggga aggtgtggat cacagtcac 540  
tttattttcc gagtcatgat cctcgtggtg gctgcccagg aagtgtgggg tgacgagcaa 600  
gaggacttcg tctgcaacac actgcaaccg ggatgcaaaa atgtgtgcta tgaccacttt 660  
ttcccgggtgt cccacatccg gctgtggggc ctccagctga tcttcgtctc cccccagcg 720  
ctgctggtgg ccatgcatgt ggctactac aggcacgaaa ccaactcgcaa gttcaggcga 780  
ggagagaaga ggaatgattt caaagacata gaggacatta aaaagcagaa ggttcggata 840  
gaggggtgac tcgagcacca ccaccaccac cactgagatc cggctgctaa caaagcccga 900  
aaggaagctg agttggctgc tgccaccgct gagcaataac tagcataacc ccttggggcc 960  
tctaaacggg tcttgagggg ttttttgctg aaaggaggaa ctatatccgg at 1012

<210> 352  
<211> 267  
<212> PRT  
<213> Homo sapiens

<400> 352  
Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu  
1 5 10 15  
Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala  
20 25 30  
Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala  
35 40 45  
Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val  
50 55 60  
Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr  
65 70 75 80  
Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr  
85 90 95  
Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser  
100 105 110  
Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr  
115 120 125  
Leu Ala Glu Gly Pro Pro Ala Glu Phe Met Asp Trp Gly Thr Leu His  
130 135 140  
Thr Phe Ile Gly Gly Val Asn Lys His Ser Thr Ser Ile Gly Lys Val

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145          150          155          160
Trp Ile Thr Val Ile Phe Ile Phe Arg Val Met Ile Leu Val Val Ala
          165          170          175
Ala Gln Glu Val Trp Gly Asp Glu Gln Glu Asp Phe Val Cys Asn Thr
          180          185          190
Leu Gln Pro Gly Cys Lys Asn Val Cys Tyr Asp His Phe Phe Pro Val
          195          200          205
Ser His Ile Arg Leu Trp Ala Leu Gln Leu Ile Phe Val Ser Thr Pro
          210          215          220
Ala Leu Leu Val Ala Met His Val Ala Tyr Tyr Arg His Glu Thr Thr
225          230          235          240
Arg Lys Phe Arg Arg Gly Glu Lys Arg Asn Asp Phe Lys Asp Ile Glu
          245          250          255
Asp Ile Lys Lys Gln Lys Val Arg Ile Glu Gly
          260          265

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<210> 353
<211> 900
<212> DNA
<213> Homo sapiens

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<400> 353
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cagggattcg ccattccgat cgggcaggcg atggcgatcg cgggccagat caagcttccc 120
accgttcata tcgggcctac cgccttctc ggcttggtg ttgtcgacaa caacggcaac 180
ggcgacagag tccaacgcgt ggtcgggagc gctccggcgg caagtctcgg catctccacc 240
ggcgacgtga tcaccgcgtt cgacggcgct ccgatcaact cggccaccgc gatggcggac 300
gcgcttaacg ggcatcatcc cggtgacgtc atctcgggtga cctggcaaac caagtcgggc 360
ggcacgcgta cagggaaact gacattggcc gagggacccc cggccgaatt ccacgaaacc 420
actcgcaagt tcaggcgagg agagaagagg aatgatttca aagacataga ggacattaaa 480
aagcagaagg ttcgataga ggggtcgctg tgggtggacgt acaccagcag catctttttc 540
cgaatcatct ttgaagcagc ctttatgtat gtgttttact tcttttacia tgggtaccac 600
ctgccctggg tgttgaaatg tgggattgac cctgccccca acctgttgga ctgctttatt 660
tctaggccaa cagagaagac cgtgtttacc atttttatga tttctgcgtc tgtgatttgc 720
atgctgctta acgtggcaga gttgtgctac ctgctgctga aagtgtgttt taggagatca 780
aagagagcac agacgcaaaa aaatcaccac aatcatgcc taaaggagag taagcagaat 840
gaaatgaatg agctgatttc agatagtggc caaaatgcaa tcacagggtt cccaagctaa 900

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<210> 354
<211> 299
<212> PRT
<213> Homo sapiens

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<400> 354
Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
 1          5          10          15
Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
          20          25          30
Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
          35          40          45
Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
          50          55          60

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Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr  
 65 70 75 80  
 Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr  
 85 90 95  
 Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser  
 100 105 110  
 Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr  
 115 120 125  
 Leu Ala Glu Gly Pro Pro Ala Glu Phe His Glu Thr Thr Arg Lys Phe  
 130 135 140  
 Arg Arg Gly Glu Lys Arg Asn Asp Phe Lys Asp Ile Glu Asp Ile Lys  
 145 150 155 160  
 Lys Gln Lys Val Arg Ile Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser  
 165 170 175  
 Ser Ile Phe Phe Arg Ile Ile Phe Glu Ala Ala Phe Met Tyr Val Phe  
 180 185 190  
 Tyr Phe Leu Tyr Asn Gly Tyr His Leu Pro Trp Val Leu Lys Cys Gly  
 195 200 205  
 Ile Asp Pro Cys Pro Asn Leu Val Asp Cys Phe Ile Ser Arg Pro Thr  
 210 215 220  
 Glu Lys Thr Val Phe Thr Ile Phe Met Ile Ser Ala Ser Val Ile Cys  
 225 230 235 240  
 Met Leu Leu Asn Val Ala Glu Leu Cys Tyr Leu Leu Leu Lys Val Cys  
 245 250 255  
 Phe Arg Arg Ser Lys Arg Ala Gln Thr Gln Lys Asn His Pro Asn His  
 260 265 270  
 Ala Leu Lys Glu Ser Lys Gln Asn Glu Met Asn Glu Leu Ile Ser Asp  
 275 280 285  
 Ser Gly Gln Asn Ala Ile Thr Gly Phe Pro Ser  
 290 295

&lt;210&gt; 355

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR primer

&lt;400&gt; 355

ggagtacagc ttcaagacaa tggg

24

&lt;210&gt; 356

&lt;211&gt; 31

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR primer

&lt;400&gt; 356

ccatgggaat tcattataat aattttgttc c

31

<400>	357														
Met	Gln	His	His	His	His	His	His	Gly	Val	Gln	Leu	Gln	Asp	Asn	Gly
1				5					10					15	
Tyr	Asn	Gly	Leu	Leu	Ile	Ala	Ile	Asn	Pro	Gln	Val	Pro	Glu	Asn	Gln
			20					25					30		
Asn	Leu	Ile	Ser	Asn	Ile	Lys	Glu	Met	Ile	Thr	Glu	Ala	Ser	Phe	Tyr
			35				40					45			
Leu	Phe	Asn	Ala	Thr	Lys	Arg	Arg	Val	Phe	Phe	Arg	Asn	Ile	Lys	Ile
	50					55					60				
Leu	Ile	Pro	Ala	Thr	Trp	Lys	Ala	Asn	Asn	Asn	Ser	Lys	Ile	Lys	Gln
65					70						75				80
Glu	Ser	Tyr	Glu	Lys	Ala	Asn	Val	Ile	Val	Thr	Asp	Trp	Tyr	Gly	Ala
				85					90					95	
His	Gly	Asp	Asp	Pro	Tyr	Thr	Leu	Gln	Tyr	Arg	Gly	Cys	Gly	Lys	Glu
			100					105					110		
Gly	Lys	Tyr	Ile	His	Phe	Thr	Pro	Asn	Phe	Leu	Leu	Asn	Asp	Asn	Leu
			115				120					125			
Thr	Ala	Gly	Tyr	Gly	Ser	Arg	Gly	Arg	Val	Phe	Val	His	Glu	Trp	Ala
	130					135					140				
His	Leu	Arg	Trp	Gly	Val	Phe	Asp	Glu	Tyr	Asn	Asn	Asp	Lys	Pro	Phe
145					150					155					160
Tyr	Ile	Asn	Gly	Gln	Asn	Gln	Ile	Lys	Val	Thr	Arg	Cys	Ser	Ser	Asp
				165					170					175	
Ile	Thr	Gly	Ile	Phe	Val	Cys	Glu	Lys	Gly	Pro	Cys	Pro	Gln	Glu	Asn
			180					185					190		
Cys	Ile	Ile	Ser	Lys	Leu	Phe	Lys	Glu	Gly	Cys	Thr	Phe	Ile	Tyr	Asn
			195				200					205			
Ser	Thr	Gln	Asn	Ala	Thr	Ala	Ser	Ile	Met	Phe	Met	Gln	Ser	Leu	Ser
	210					215					220				
Ser	Val	Val	Glu	Phe	Cys	Asn	Ala	Ser	Thr	His	Asn	Gln	Glu	Ala	Pro
225					230					235					240
Asn	Leu	Gln	Asn	Gln	Met	Cys	Ser	Leu	Arg	Ser	Ala	Trp	Asp	Val	Ile
				245					250					255	
Thr	Asp	Ser	Ala	Asp	Phe	His	His	Ser	Phe	Pro	Met	Asn	Gly	Thr	Glu
			260					265					270		
Leu	Pro	Pro	Pro	Pro	Thr	Phe	Ser	Leu	Val	Glu	Ala	Gly	Asp	Lys	Val
			275				280					285			
Val	Cys	Leu	Val	Leu	Asp	Val	Ser	Ser	Lys	Met	Ala	Glu	Ala	Asp	Arg
	290					295					300				
Leu	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Glu	Phe	Tyr	Leu	Met	Gln	Ile	Val
305					310					315					320
Glu	Ile	His	Thr	Phe	Val	Gly	Ile	Ala	Ser	Phe	Asp	Ser	Lys	Gly	Glu
				325					330						

Gly	Lys	Ala	Tyr	Gly	Ser	Val	Met	Ile	Leu	Val	Thr	Ser	Gly	Asp	Asp	385	390	395	400
Lys	Leu	Leu	Gly	Asn	Cys	Leu	Pro	Thr	Val	Leu	Ser	Ser	Gly	Ser	Thr	405	410	415	
Ile	His	Ser	Ile	Ala	Leu	Gly	Ser	Ser	Ala	Ala	Pro	Asn	Leu	Glu	Glu	420	425	430	
Leu	Ser	Arg	Leu	Thr	Gly	Gly	Leu	Lys	Phe	Phe	Val	Pro	Asp	Ile	Ser	435	440	445	
Asn	Ser	Asn	Ser	Met	Ile	Asp	Ala	Phe	Ser	Arg	Ile	Ser	Ser	Gly	Thr	450	455	460	
Gly	Asp	Ile	Phe	Gln	Gln	His	Ile	Gln	Leu	Glu	Ser	Thr	Gly	Glu	Asn	465	470	475	480
Val	Lys	Pro	His	His	Gln	Leu	Lys	Asn	Thr	Val	Thr	Val	Asp	Asn	Thr	485	490	495	
Val	Gly	Asn	Asp	Thr	Met	Phe	Leu	Val	Thr	Trp	Gln	Ala	Ser	Gly	Pro	500	505	510	
Pro	Glu	Ile	Ile	Leu	Phe	Asp	Pro	Asp	Gly	Arg	Lys	Tyr	Tyr	Thr	Asn	515	520	525	
Asn	Phe	Ile	Thr	Asn	Leu	Thr	Phe	Arg	Thr	Ala	Ser	Leu	Trp	Ile	Pro	530	535	540	
Gly	Thr	Ala	Lys	Pro	Gly	His	Trp	Thr	Tyr	Thr	Leu	Asn	Asn	Thr	His	545	550	555	560
His	Ser	Leu	Gln	Ala	Leu	Lys	Val	Thr	Val	Thr	Ser	Arg	Ala	Ser	Asn	565	570	575	
Ser	Ala	Val	Pro	Pro	Ala	Thr	Val	Glu	Ala	Phe	Val	Glu	Arg	Asp	Ser	580	585	590	
Leu	His	Phe	Pro	His	Pro	Val	Met	Ile	Tyr	Ala	Asn	Val	Lys	Gln	Gly	595	600	605	
Phe	Tyr	Pro	Ile	Leu	Asn	Ala	Thr	Val	Thr	Ala	Thr	Val	Glu	Pro	Glu	610	615	620	
Thr	Gly	Asp	Pro	Val	Thr	Leu	Arg	Leu	Leu	Asp	Asp	Gly	Ala	Gly	Ala	625	630	635	640
Asp	Val	Ile	Lys	Asn	Asp	Gly	Ile	Tyr	Ser	Arg	Tyr	Phe	Phe	Ser	Phe	645	650	655	
Ala	Ala	Asn	Gly	Arg	Tyr	Ser	Leu	Lys	Val	His	Val	Asn	His	Ser	Pro	660	665	670	
Ser	Ile	Ser	Thr	Pro	Ala	His	Ser	Ile	Pro	Gly	Ser	His	Ala	Met	Tyr	675	680	685	
Val	Pro	Gly	Tyr	Thr	Ala	Asn	Gly	Asn	Ile	Gln	Met	Asn	Ala	Pro	Arg	690	695	700	
Lys	Ser	Val	Gly	Arg	Asn	Glu	Glu	Glu	Arg	Lys	Trp	Gly	Phe	Ser	Arg	705	710	715	720
Val	Ser	Ser	Gly	Gly	Ser	Phe	Ser	Val	Leu	Gly	Val	Pro	Ala	Gly	Pro	725	730	735	
His	Pro	Asp	Val	Phe	Pro	Pro	Cys	Lys	Ile	Ile	Asp	Leu	Glu	Ala	Val	740	745	750	
Lys	Val	Glu	Glu	Glu	Leu	Thr	Leu	Ser	Trp	Thr	Ala	Pro	Gly	Glu	Asp	755	760	765	
Phe	Asp	Gln	Gly	Gln	Ala	Thr	Ser	Tyr	Glu	Ile	Arg	Met	Ser	Lys	Ser	770	775	780	
Leu	Gln	Asn	Ile	Gln	Asp	Asp	Phe	Asn	Asn	Ala	Ile	Leu	Val	Asn	Thr	785	790	795	800
Ser	Lys	Arg	Asn	Pro	Gln	Gln	Ala	Gly	Ile	Arg	Glu	Ile	Phe	Thr	Phe	805	810	815	



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<210> 358
<211> 2773
<212> DNA
<213> Homo sapiens
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<400>	358					
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gaaatgataa	ctgaagcttc	atcttaccta	tttaattgcta	ccaagagaag	agtatttttc	180
agaaatataa	agattttaat	acctgccaca	tggaaagcta	ataataacag	caaaataaaa	240
caagaatcat	atgaaaaggc	aaatgtcata	gtgactgact	gggatggggc	acatggagat	300
gatccataca	ccctacaata	cagaggggtg	ggaaaagagg	gaaaatacat	tcatttcaca	360
cctaattttc	tactgaatga	taacttaaca	gctgggtacg	gatcacgagg	ccgagtgttt	420
gtccatgaat	gggccaccct	ccgttggggg	gtgttcgatg	agtataacaa	tgacaaacct	480
ttctacataa	atgggcaaaa	tcaaattaaa	gtgacaagg	gttcatctga	catcacaggc	540
attttttgtg	gtgaaaaagg	tccttgcccc	caagaaaact	gtattattag	taagcttttt	600
aaagaaggat	gcacctttat	ctacaatagc	acccaaaatg	caactgcctc	aataatgttc	660
atgcaaagtt	tatcttctgt	ggttgaattt	tgtaatgcaa	gtaccacaaa	ccaagaagca	720
ccaaacctac	agaaccagat	gtgcagcctc	agaagtgcct	gggagttaat	ccagactctt	780
tctgactttc	accacagctt	tcccatgaa	gggactgagc	ttccacctcc	tcccacattc	840
gcgctttag	aggctgtgga	caaagtggtc	tgtttagtgc	tggatgtgtc	cagcaagatg	900
gcagaggctg	acagactcct	tcaactacaa	caagccgcag	aattttattt	gatgcagatt	960
gttgaaattc	ataccttcgt	gggcattgcc	agtttcgaca	gcaaaggaga	gatcagagcc	1020
cagctacacc	aaattaacag	caatgatgat	cgaaagttgc	tggtttcata	tctgccacc	1080
actgtatcag	ctaaaacaga	catcagcatt	tgttcagggc	ttaagaaagg	atttgagggtg	1140
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ttaaagttct	ttgttcaga	tatatcaaac	tccaatagca	tgattgatgc	tttcagtaga	1380
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aatgtcaaac	ctcaccatca	attgaaaaac	acagtgaactg	tggataatac	tgtgggcaac	1500
gacactatgt	ttctagttag	gtggcaggcc	agtggctctc	ctgagattat	attatttgat	1560
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ccccagcca	ctgtggaagc	cttgttgga	agagacagcc	tccattttcc	tcactctgtg	1800
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gctgatgtta taaaaaatga tggaaattac tcgaggtatt ttttctcctt tgctgcaaat 1980
ggtagatata gcttgaaagt gcatgtcaat cactctccca gcataagcac cccagcccac 2040
tctattccag ggagtcatgc tatgtatgta ccagggttaca cagcaaacgg taatattcag 2100
atgaatgctc caaggaaatc agtaggcaga aatgaggagg agcgaaagtg gggcttttagc 2160
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gtgtttccac catgcaaaat tattgacctg gaagctgtaa aagtagaaga ggaattgacc 2280
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caggcgccctc tgttttattcc cccaattct gatcctgtac ctgccagaga ttatcttata 2640
ttgaaaggag ttttaacagc aatgggtttg ataggaatca tttgccttat tatagttgtg 2700
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<210> 359

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 359

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<210> 360

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 360

cgccagaatt catcaaaca atctgttagc acc 33

<210> 361

<211> 77

<212> PRT

<213> Homo sapiens

<400> 361

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Met Gln His His His His His Trp Gln Pro Leu Phe Phe Lys Trp
 1             5             10             15
Leu Leu Ser Cys Cys Pro Gly Ser Ser Gln Ile Ala Ala Ala Ala Ser
          20             25             30
Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu
          35             40             45
Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr
          50             55             60
Ile Pro Gln Thr Ser Ser His Gly Ala Asn Arg Phe Val
65             70             75

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<210> 362  
 <211> 244  
 <212> DNA  
 <213> Homo sapiens

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 tgttgccctg ggagttctca aattgctgca gcagcctcca cccagcctga ggatgacatc 120  
 aatacacaga ggaagaagag tcaggaaaag atgagagaag ttacagactc tcttgggcga 180  
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 attc 244

<210> 363  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 363  
 Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly  
 1 5 10 15  
 Ser Ser Gln Ile  
 20

<210> 364  
 <211> 60  
 <212> DNA  
 <213> Homo sapiens

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<210> 365  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 365  
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 Ile Asn Thr Gln  
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<210> 366  
 <211> 60  
 <212> DNA  
 <213> Homo sapiens

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gaatatattg	aacgtcttgt	atggagaacc	ccaggaggag	gctctagagg	tggacctgaa	300	
gcttttgatc	ctaaaagatt	attagaagaa	tttgtaaato	atattcagga	actccagata	360	
atggatgaaa	ggattcagag	gaaagtagag	aaactagagc	aacaatgtca	gaaagaagcc	420	
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ctgattcagg	agtttaccag	tgctcaaaga	agaggtgaaa	tctccagaat	gagagaagta	840	
gcagcagttt	tacttcaatt	taagggttat	tccatttgtg	ttgatgttta	tataaagcag	900	
tgccaggagg	gtgcttattt	gagaaatgat	atatttgaag	acgctggaat	actctgtcaa	960	
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tggtataaag	ctctgtctta	ctgaagaaaa	caagtggaga	agattaaaaa	ttccatggat	1980	
gggaagaatg	tggatacagt	tttgatgaaa	cttggagtac	qttttcatcg	acttatctat	2040	

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gagcatcttc aacaatatc ctacagttgt atgggtggca tgttggccat ttgtgatgta 2100
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tcaggagaac aacttgctaa tctggacaag aatatacttc actccttcgt acaacttcgt 2280
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<210> 369

<211> 708

<212> PRT

<213> Homo sapiens

<400> 369

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          20          25          30
Gly Pro Glu Ala Phe Asp Pro Lys Arg Leu Leu Glu Glu Phe Val Asn
          35          40          45
His Ile Gln Glu Leu Gln Ile Met Asp Glu Arg Ile Gln Arg Lys Val
          50          55          60
Glu Lys Leu Glu Gln Gln Cys Gln Lys Glu Ala Lys Glu Phe Ala Lys
65          70          75          80
Lys Val Gln Glu Leu Gln Lys Ser Asn Gln Val Ala Phe Gln His Phe
          85          90          95
Gln Glu Leu Asp Glu His Ile Ser Tyr Val Ala Thr Lys Val Cys His
          100          105          110
Leu Gly Asp Gln Leu Glu Gly Val Asn Thr Pro Arg Gln Arg Ala Val
          115          120          125
Glu Ala Gln Lys Leu Met Lys Tyr Phe Asn Glu Phe Leu Asp Gly Glu
          130          135          140
Leu Lys Ser Asp Val Phe Thr Asn Ser Glu Lys Ile Lys Glu Ala Ala
145          150          155          160
Asp Ile Ile Gln Lys Leu His Leu Ile Ala Gln Glu Leu Pro Phe Asp
          165          170          175
Arg Phe Ser Glu Val Lys Ser Lys Ile Ala Ser Lys Tyr His Asp Leu
          180          185          190
Glu Cys Gln Leu Ile Gln Glu Phe Thr Ser Ala Gln Arg Arg Gly Glu
          195          200          205
Ile Ser Arg Met Arg Glu Val Ala Ala Val Leu Leu His Phe Lys Gly
          210          215          220
Tyr Ser His Cys Val Asp Val Tyr Ile Lys Gln Cys Gln Glu Gly Ala
225          230          235          240
Tyr Leu Arg Asn Asp Ile Phe Glu Asp Ala Gly Ile Leu Cys Gln Arg
          245          250          255
Val Asn Lys Gln Val Gly Asp Ile Phe Ser Asn Pro Glu Thr Val Leu
          260          265          270
Ala Lys Leu Ile Gln Asn Val Phe Glu Ile Lys Leu Gln Ser Phe Val
          275          280          285
Lys Glu Gln Leu Glu Glu Cys Arg Lys Ser Asp Ala Glu Gln Tyr Leu
          290          295          300
Lys Asn Leu Tyr Asp Leu Tyr Thr Arg Thr Thr Asn Leu Ser Ser Lys
305          310          315          320
Leu Met Glu Phe Asn Leu Gly Thr Asp Lys Gln Thr Phe Leu Ser Lys

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325 330 335  
 Leu Ile Lys Ser Ile Phe Ile Ser Tyr Leu Glu Asn Tyr Ile Glu Val  
 340 345 350  
 Glu Thr Gly Tyr Leu Lys Ser Arg Ser Ala Met Ile Leu Gln Arg Tyr  
 355 360 365  
 Tyr Asp Ser Lys Asn His Gln Lys Arg Ser Ile Gly Thr Gly Gly Ile  
 370 375 380  
 Gln Asp Leu Lys Glu Arg Ile Arg Gln Arg Thr Asn Leu Pro Leu Gly  
 385 390 395 400  
 Pro Ser Ile Asp Thr His Gly Glu Thr Phe Leu Ser Gln Glu Val Val  
 405 410 415  
 Val Asn Leu Leu Gln Glu Thr Lys Gln Ala Phe Glu Arg Cys His Arg  
 420 425 430  
 Leu Ser Asp Pro Ser Asp Leu Pro Arg Asn Ala Phe Arg Ile Phe Thr  
 435 440 445  
 Ile Leu Val Glu Phe Leu Cys Ile Glu His Ile Asp Tyr Ala Leu Glu  
 450 455 460  
 Thr Gly Leu Ala Gly Ile Pro Ser Ser Asp Ser Arg Asn Ala Asn Leu  
 465 470 475 480  
 Tyr Phe Leu Asp Val Val Gln Gln Ala Asn Thr Ile Phe His Leu Phe  
 485 490 495  
 Asp Lys Gln Phe Asn Asp His Leu Met Pro Leu Ile Ser Ser Ser Pro  
 500 505 510  
 Lys Leu Ser Glu Cys Leu Gln Lys Lys Lys Glu Ile Ile Glu Gln Met  
 515 520 525  
 Glu Met Lys Leu Asp Thr Gly Ile Asp Arg Thr Leu Asn Cys Met Ile  
 530 535 540  
 Gly Gln Met Lys His Ile Leu Ala Ala Glu Gln Lys Lys Thr Asp Phe  
 545 550 555 560  
 Lys Pro Glu Asp Glu Asn Asn Val Leu Ile Gln Tyr Thr Asn Ala Cys  
 565 570 575  
 Val Lys Val Cys Ala Tyr Val Arg Lys Gln Val Glu Lys Ile Lys Asn  
 580 585 590  
 Ser Met Asp Gly Lys Asn Val Asp Thr Val Leu Met Glu Leu Gly Val  
 595 600 605  
 Arg Phe His Arg Leu Ile Tyr Glu His Leu Gln Gln Tyr Ser Tyr Ser  
 610 615 620  
 Cys Met Gly Gly Met Leu Ala Ile Cys Asp Val Ala Glu Tyr Arg Lys  
 625 630 635 640  
 Cys Ala Lys Asp Phe Lys Ile Pro Met Val Leu His Leu Phe Asp Thr  
 645 650 655  
 Leu His Ala Leu Cys Asn Leu Leu Val Val Ala Pro Asp Asn Leu Lys  
 660 665 670  
 Gln Val Cys Ser Gly Glu Gln Leu Ala Asn Leu Asp Lys Asn Ile Leu  
 675 680 685  
 His Ser Phe Val Gln Leu Arg Ala Asp Tyr Arg Ser Ala Arg Leu Ala  
 690 695 700  
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&lt;210&gt; 370

&lt;211&gt; 60

&lt;212&gt; DNA

<213> Homo sapiens

<400> 370

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<210> 371

<211> 60

<212> DNA

<213> Homo sapiens

<400> 371

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<213> Homo sapiens

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<210> 374

<211> 60

<212> DNA

<213> Homo sapiens

<400> 374

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<210> 375

<211> 60

<212> DNA

<213> Homo sapiens

<400> 375

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<210> 376

<211> 20

<212> PRT

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<213> Homo sapiens

<400> 376

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Leu Gln Ser Ala Val Ser Asn Ile Ala Gln Ala Pro Leu Phe Ile Pro
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Pro Asn Ser Asp
           20

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<210> 377

<211> 20

<212> PRT

<213> Homo sapiens

<400> 377

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Val Asn His Ser Pro Ser Ile Ser Thr Pro Ala His Ser Ile Pro Gly
 1           5           10           15
Ser His Ala Met
           20

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<210> 378

<211> 20

<212> PRT

<213> Homo sapiens

<400> 378

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Pro Glu Thr Gly Asp Pro Val Thr Leu Arg Leu Leu Asp Asp Gly Ala
 1           5           10           15
Gly Ala Asp Val
           20

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<210> 379

<211> 20

<212> PRT

<213> Homo sapiens

<400> 379

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Ala Val Pro Pro Ala Thr Val Glu Ala Phe Val Glu Arg Asp Ser Leu
 1           5           10           15
His Phe Pro His
           20

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<210> 380

<211> 20

<212> PRT

<213> Homo sapiens

<400> 380

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Ser Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile Gln
 1           5           10           15
Leu Glu Ser Thr

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&lt;223&gt; PCR primer

&lt;400&gt; 385

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&lt;210&gt; 386

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR primer

&lt;400&gt; 386

cggctcgagt tagcttgggc ctgtgattgc

30

&lt;210&gt; 387

&lt;211&gt; 20

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&lt;213&gt; Homo sapiens

&lt;400&gt; 387

Phe	Phe	Lys	Trp	Leu	Leu	Ser	Cys	Cys	Pro	Gly	Ser	Ser	Gln	Ile	Ala
1				5					10				15		

Ala	Ala	Ala	Ser
			20

&lt;210&gt; 388

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 388

Leu	Ser	Cys	Cys	Pro	Gly	Ser	Ser	Gln	Ile	Ala	Ala	Ala	Ser	Thr	Gln
1				5				10					15		

Pro Glu Asp

&lt;210&gt; 389

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 389

Ala	Ala	Ala	Ala	Ser	Thr	Gln	Pro	Glu	Asp	Asp	Ile	Asn	Thr	Gln	Arg
1				5				10					15		

Lys	Lys	Ser	Gln
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<400> 394  
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Gln Gln Pro Arg
      20

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<400> 409
Ala Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly
 1          5          10          15
Gln Arg Gly Ser
      20

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<400> 410
Gly Arg Arg Gly Leu Gly Gln Arg Gly Ser Ser Arg Gln Gly Ser Pro
 1          5          10          15
Gly Ser Val Ser
      20
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<400> 411
Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys Pro Cys Asp
 1          5          10          15
Leu Pro Leu Arg
      20
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<400> 412  
Lys Gln Lys Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln

1                    5                    10                    15  
Phe Val Gly Ala  
20

<210> 413  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 413  
Leu Leu Val Pro Thr Gln Phe Val Gly Ala Ile Ile Gly Lys Glu Gly  
1                    5                    10                    15  
Ala Thr Ile Arg  
20

<210> 414  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 414  
Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln Thr  
1                    5                    10                    15  
Gln Ser Lys Ile  
20

<210> 415  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 415  
Asn Ile Thr Lys Gln Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu  
1                    5                    10                    15  
Asn Ala Gly Ala  
20

<210> 416  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 416  
Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala Glu Lys Ser Ile Thr  
1                    5                    10                    15  
Ile Leu Ser Thr  
20

<210> 417



<211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 417  
 Ala Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala  
 1 5 10 15  
 Ala Cys Lys Ser  
 20

<210> 418  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 418  
 Pro Glu Gly Thr Ser Ala Ala Cys Lys Ser Ile Leu Glu Ile Met His  
 1 5 10 15  
 Lys Glu Ala Gln  
 20

<210> 419  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 419  
 Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys Phe Thr Glu  
 1 5 10 15  
 Glu Ile Pro Leu  
 20

<210> 420  
 <211> 455  
 <212> DNA  
 <213> Homo sapiens

<400> 420  
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 gccctagcca acgccgcatg agagggagtg tgccgagggc ttctgagaag gtttctctca 120  
 catctagaaa gaagcgctta agatgtggca gcccctcttc ttcaagtggc tcttgctctg 180  
 ttgccctggg agttctcaaa ttgctgcagc agcctccacc cagcctgagg atgacatcaa 240  
 tacacagagg aagaagagtc aggaaaagat gagagaagt acagactctc ctgggcgacc 300  
 ccgagagctt accattcctc agacttcttc acatggtgct aacagatttg ttctctaaaag 360  
 taaagctcta gaggcgctca aattggcaat agaagccggg ttccaccata ttgattctgc 420  
 acatgtttac aataatgagg agcaggttgg actgg 455

<210> 421  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR primer

&lt;400&gt; 421

actagtgtcc gcgtggcggc ctac

24

&lt;210&gt; 422

&lt;211&gt; 34

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR primer

&lt;400&gt; 422

catgagaatt catcacatgc ccttgaaggc tccc

34

&lt;210&gt; 423

&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 423

Met	Gln	His	His	His	His	His	His	His	Thr	Ser	Val	Arg	Val	Ala	Ala
1				5					10					15	
Tyr	Phe	Glu	Asn	Phe	Leu	Ala	Ala	Trp	Arg	Pro	Val	Lys	Ala	Ser	Asp
			20					25					30		
Gly	Asp	Tyr	Tyr	Thr	Leu	Ala	Val	Pro	Met	Gly	Asp	Val	Pro	Met	Asp
		35					40					45			
Gly	Ile	Ser	Val	Ala	Asp	Ile	Gly	Ala	Ala	Val	Ser	Ser	Ile	Phe	Asn
	50					55				60					
Ser	Pro	Glu	Glu	Phe	Leu	Gly	Lys	Ala	Val	Gly	Leu	Ser	Ala	Glu	Ala
65					70					75				80	
Leu	Thr	Ile	Gln	Gln	Tyr	Ala	Asp	Val	Leu	Ser	Lys	Ala	Leu	Gly	Lys
			85						90					95	
Glu	Val	Arg	Asp	Ala	Lys	Ile	Thr	Pro	Glu	Ala	Phe	Glu	Lys	Leu	Gly
			100					105						110	
Phe	Pro	Ala	Ala	Lys	Glu	Ile	Ala	Asn	Met	Cys	Arg	Phe	Tyr	Glu	Met
	115						120					125			
Lys	Pro	Asp	Arg	Asp	Val	Asn	Leu	Thr	His	Gln	Leu	Asn	Pro	Lys	Val
	130					135					140				
Lys	Ser	Phe	Ser	Gln	Phe	Ile	Ser	Glu	Asn	Gln	Gly	Ala	Phe	Lys	Gly
145					150					155					160
Met															

&lt;210&gt; 424

&lt;211&gt; 489

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 424

```

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tttctcgcgg cgtggcgggc cgtgaaagcc tctgatggag attactacac cttggctgta 120
ccgatgggag atgtaccaat ggatggtatc tctgttgctg atattggagc agccgtctct 180
agcattttta attctccaga ggaattttta ggcaaggccg tggggctcag tgcagaagca 240
ctaacaatac agcaatatgc tgatgttttg tccaaggctt tggggaaaga agtccgagat 300
gcaaagatta ccccggaagc tttcgagaag ctgggattcc ctgcagcaaa ggaaatagcc 360
aatatgtgtc gtttctatga aatgaagcca gaccgagatg tcaatctcac ccaccaacta 420
aatcccaaag tcaaaagctt cagccagttt atctcagaga accagggagc cttcaagggc 480
atgtgatga                                     489

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<210> 425

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 425

aacaaactgt atatcggaac cctcagcgag aa 32

<210> 426

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 426

ccatagaatt cattacttcc gtcttgactg agg 33

<210> 427

<211> 586

<212> PRT

<213> Homo sapiens

<400> 427

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Met Gln His His His His His Asn Lys Leu Tyr Ile Gly Asn Leu
 1          5          10          15
Ser Glu Asn Ala Ala Pro Ser Asp Leu Glu Ser Ile Phe Lys Asp Ala
 20          25          30
Lys Ile Pro Val Ser Gly Pro Phe Leu Val Lys Thr Gly Tyr Ala Phe
 35          40          45
Val Asp Cys Pro Asp Glu Ser Trp Ala Leu Lys Ala Ile Glu Ala Leu
 50          55          60
Ser Gly Lys Ile Glu Leu His Gly Lys Pro Ile Glu Val Glu His Ser
 65          70          75          80
Val Pro Lys Arg Gln Arg Ile Arg Lys Leu Gln Ile Arg Asn Ile Pro
 85          90          95
Pro His Leu Gln Trp Glu Val Leu Asp Ser Leu Leu Val Gln Tyr Gly
100          105          110
Val Val Glu Ser Cys Glu Gln Val Asn Thr Asp Ser Glu Thr Ala Val
115          120          125

```

Val 130	Asn	Val	Thr	Tyr	Ser	Ser 135	Lys	Asp	Gln	Ala	Arg 140	Gln	Ala	Leu	Asp
Lys 145	Leu	Asn	Gly	Phe	Gln 150	Leu	Glu	Asn	Phe	Thr 155	Leu	Lys	Val	Ala	Tyr 160
Ile	Pro	Asp	Glu	Thr 165	Ala	Ala	Gln	Gln	Asn 170	Pro	Leu	Gln	Gln	Pro	Arg 175
Gly	Arg	Arg	Gly 180	Leu	Gly	Gln	Arg	Gly 185	Ser	Ser	Arg	Gln	Gly	Ser	Pro
Gly	Ser	Val	Ser 195	Lys	Gln	Lys	Pro	Cys 200	Asp	Leu	Pro	Leu	Arg	Leu	Leu
Val 210	Pro	Thr	Gln	Phe	Val	Gly 215	Ala	Ile	Ile	Gly 220	Lys	Glu	Gly	Ala	Thr
Ile 225	Arg	Asn	Ile	Thr	Lys 230	Gln	Thr	Gln	Ser	Lys 235	Ile	Asp	Val	His	Arg 240
Lys	Glu	Asn	Ala 245	Gly	Ala	Ala	Glu	Lys	Ser 250	Ile	Thr	Ile	Leu	Ser	Thr 255
Pro	Glu	Gly	Thr 260	Ser	Ala	Ala	Cys	Lys 265	Ser	Ile	Leu	Glu	Ile	Met	His
Lys	Glu	Ala 275	Gln	Asp	Ile	Lys	Phe 280	Thr	Glu	Glu	Ile	Pro	Leu	Lys	Ile
Leu 290	Ala	His	Asn	Asn	Phe 295	Val	Gly	Arg	Leu	Ile 300	Gly	Lys	Glu	Gly	Arg
Asn 305	Leu	Lys	Lys	Ile	Glu 310	Gln	Asp	Thr	Asp	Thr 315	Lys	Ile	Thr	Ile	Ser 320
Pro	Leu	Gln	Glu	Leu 325	Thr	Leu	Tyr	Asn 330	Pro	Glu	Arg	Thr	Ile	Thr	Val
Lys	Gly	Asn 340	Val	Glu	Thr	Cys	Ala 345	Lys	Ala	Glu	Glu	Glu	Ile	Met	Lys
Lys	Ile	Arg 355	Glu	Ser	Tyr	Glu	Asn 360	Asp	Ile	Ala	Ser	Met	Asn	Leu	Gln
Ala 370	His	Leu	Ile	Pro	Gly 375	Leu	Asn	Leu	Asn	Ala 380	Leu	Gly	Leu	Phe	Pro
Pro 385	Thr	Ser	Gly	Met	Pro 390	Pro	Pro	Thr	Ser	Gly 395	Pro	Pro	Ser	Ala	Met 400
Thr	Pro	Pro	Tyr 405	Pro	Gln	Phe	Glu	Gln 410	Ser	Glu	Thr	Glu	Thr	Val	His
Leu	Phe	Ile 420	Pro	Ala	Leu	Ser	Val 425	Gly	Ala	Ile	Ile	Gly	Lys	Gln	Gly
Gln	His 435	Ile	Lys	Gln	Leu	Ser	Arg 440	Phe	Ala	Gly	Ala	Ser	Ile	Lys	Ile
Ala 450	Pro	Ala	Glu	Ala	Pro	Asp 455	Ala	Lys	Val	Arg	Met 460	Val	Ile	Ile	Thr
Gly 465	Pro	Pro	Glu	Ala	Gln 470	Phe	Lys	Ala	Gln	Gly 475	Arg	Ile	Tyr	Gly	Lys 480
Ile	Lys	Glu	Glu 485	Asn	Phe	Val	Ser	Pro 490	Lys	Glu	Glu	Val	Lys	Leu	Glu
Ala	His	Ile 500	Arg	Val	Pro	Ser	Phe 505	Ala	Ala	Gly	Arg	Val	Ile	Gly	Lys
Gly	Gly 515	Lys	Thr	Val	Asn	Glu	Leu 520	Gln	Asn	Leu	Ser	Ser	Ala	Glu	Val
Val 530	Val	Pro	Arg	Asp	Gln 535	Thr	Pro	Asp	Glu	Asn 540	Asp	Gln	Val	Val	Val
Lys 545	Ile	Thr	Gly	His 550	Phe	Tyr	Ala	Cys	Gln	Val 555	Ala	Gln	Arg	Lys	Ile 560

Gln Glu Ile Leu Thr Gln Val Lys Gln His Gln Gln Gln Lys Ala Leu  
                   565                                  570                                  575  
 Gln Ser Gly Pro Pro Gln Ser Arg Arg Lys  
                   580                                  585

<210> 428  
 <211> 1764  
 <212> DNA  
 <213> Homo sapiens

<400> 428  
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 ctggtgaaga ctggctacgc gttcgtggac tgcccggaag agagctgggc cctcaaggcc 180  
 atcgaggcgc ttccaggtaa aatagaactg cacgggaaac ccatagaagt tgagcaactc 240  
 gtcccaaaaa ggcaaaggat tcggaaactt cagatacgaa atatcccgcc tcatttacag 300  
 tgggaggtgc tggatagttt actagtcag tatggagtgg tggagagctg tgagcaagtg 360  
 aacactgact cggaaactgc agttgtaaat gtaacctatt ccagtaagga ccaagctaga 420  
 caagcactag acaaaactgaa tggatttcag ttagagaatt tcaccttgaa agtagcctat 480  
 atccctgatg aaacggccgc ccagcaaaac cccttcagc agccccgagg tcgccggggg 540  
 cttgggcaga ggggctcctc aaggcagggg tctccaggat ccgtatccaa gcagaaacca 600  
 tgtgatttgc ctctgcgcct gctggttccc acccaatttg ttggagccat cataggaaaa 660  
 gaaggtgcca ccattcggaa catcaccaa cagaccagc ctaaaatcga tgtccaccgt 720  
 aaagaaaatg cgggggctgc tgagaagtcg attactatcc tctctactcc tgaaggcacc 780  
 tctgcggctt gtaagtctat tctggagatt atgcataagg aagctcaaga tataaaattc 840  
 acagaagaga tccccttgaa gattttagct cataataact ttgttgagc tcttattggt 900  
 aaagaaggaa gaaatcttaa aaaaattgag caagacacag acactaaaat cagcatatct 960  
 ccattgcagg aattgacgct gtataatcca gaacgcacta ttacagttaa aggcaatggt 1020  
 gagacatgtg ccaaagctga ggaggagatc atgaagaaaa tcagggagtc ttatgaaaat 1080  
 gatattgctt ctatgaatct tcaagcacat ttaattcctg gattaaatct gaacgccttg 1140  
 ggtctgttcc caccacttc agggatgcca cctcccacct cagggccccc ttcagccatg 1200  
 actcctccct accgcagtt tgagcaatca gaaacggaga ctgttcactt gtttatccca 1260  
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 gtgattatca ctggaccacc agaggctcag ttcaaggctc agggagaagt ttatggaaaa 1440  
 attaaagaag aaaactttgt tagtcctaaa gaagaggtga aacttgaagc tcatatcaga 1500  
 gtgccatcct ttgctgctgg cagagttatt ggaaaaggag gcaaaacggt gaatgaactt 1560  
 cagaatttgt caagtgcaga agttgtgttc cctcgtgacc agacacctga tgagaatgac 1620  
 caagtggttg tcaaaataac tggtcacttc tatgcttgcc aggttgccca gagaaaaatt 1680  
 caggaaattc tgactcaggt aaagcagcac caacaacaga aggctctgca aagtggacca 1740  
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<210> 429  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 429  
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<400> 430

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Tyr	Asn	Gly	Leu	Leu	Ile	Ala	Ile	Asn	Pro	Gln	Val	Pro	Glu	Asn	Gln
			20					25					30		
Asn	Leu	Ile	Ser	Asn	Ile	Lys	Glu	Met	Ile	Thr	Glu	Ala	Ser	Phe	Tyr
		35					40					45			
Leu	Phe	Asn	Ala	Thr	Lys	Arg	Arg	Val	Phe	Phe	Arg	Asn	Ile	Lys	Ile
	50					55					60				
Leu	Ile	Pro	Ala	Thr	Trp	Lys	Ala	Asn	Asn	Asn	Ser	Lys	Ile	Lys	Gln
65					70					75					80
Glu	Ser	Tyr	Glu	Lys	Ala	Asn	Val	Ile	Val	Thr	Asp	Trp	Tyr	Gly	Ala
				85					90					95	
His	Gly	Asp	Asp	Pro	Tyr	Thr	Leu	Gln	Tyr	Arg	Gly	Cys	Gly	Lys	Glu
			100					105					110		
Gly	Lys	Tyr	Ile	His	Phe	Thr	Pro	Asn	Phe	Leu	Leu	Asn	Asp	Asn	Leu
		115					120					125			
Thr	Ala	Gly	Tyr	Gly	Ser	Arg	Gly	Arg	Val	Phe	Val	His	Glu	Trp	Ala
		130				135					140				
His	Leu	Arg	Trp	Gly	Val	Phe	Asp	Glu	Tyr	Asn	Asn	Asp	Lys	Pro	Phe
145					150					155					160
Tyr	Ile	Asn	Gly	Gln	Asn	Gln	Ile	Lys	Val	Thr	Arg	Cys	Ser	Ser	Asp
			165					170					175		
Ile	Thr	Gly	Ile	Phe	Val	Cys	Glu	Lys	Gly	Pro	Cys	Pro	Gln	Glu	Asn
			180					185					190		
Cys	Ile	Ile	Ser	Lys	Leu	Phe	Lys	Glu	Gly	Cys	Thr	Phe	Ile	Tyr	Asn
		195					200					205			
Ser	Thr	Gln	Asn	Ala	Thr	Ala	Ser	Ile	Met	Phe	Met	Gln	Ser	Leu	Ser
	210					215					220				
Ser	Val	Val	Glu	Phe	Cys	Asn	Ala	Ser	Thr	His	Asn	Gln	Glu	Ala	Pro
225					230					235					240
Asn	Leu	Gln	Asn	Gln	Met	Cys	Ser	Leu	Arg	Ser	Ala	Trp	Asp	Val	Ile
				245					250					255	
Thr	Asp	Ser	Ala	Asp	Phe	His	His	Ser	Phe	Pro	Met	Asn	Gly	Thr	Glu
			260					265					270		
Leu	Pro	Pro	Pro	Pro	Thr	Phe	Ser	Leu	Val	Glu	Ala	Gly	Asp	Lys	Val
		275					280					285			
Val	Cys	Leu	Val	Leu	Asp	Val	Ser	Ser	Lys	Met	Ala	Glu	Ala	Asp	Arg
	290					295					300				
Leu	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Glu	Phe	Tyr	Leu	Met	Gln	Ile	Val
305					310					315					320
Glu	Ile	His	Thr	Phe	Val	Gly	Ile	Ala	Ser	Phe	Asp	Ser	Lys	Gly	Glu
				325					330					335	
Ile	Arg	Ala	Gln	Leu	His	Gln	Ile	Asn	Ser	Asn	Asp	Asp	Arg	Lys	Leu
			340					345					350		
Leu	Val	Ser	Tyr	Leu	Pro	Thr	Thr	Val	Ser	Ala	Lys	Thr	Asp	Ile	Ser



Ser Pro Gln Ile Ser Thr Asn Gly Pro Glu His Gln Pro Asn Gly Glu  
                   820                  825                  830  
 Thr His Glu Ser His Arg Ile Tyr Val Ala Ile Arg Ala Met Asp Arg  
                   835                  840                  845  
 Asn Ser Leu Gln Ser Ala Val Ser Asn Ile Ala Gln Ala Pro Leu Phe  
                   850                  855                  860  
 Ile Pro Pro Asn Ser Asp Pro Val Pro Ala Arg Asp Tyr Leu Ile Leu  
 865                  870                  875                  880  
 Lys

<210> 431  
 <211> 2646  
 <212> DNA  
 <213> Homo sapiens

<400> 431  
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 ctcatcgcaa ttaatcctca ggtacctgag aatcagaacc tcatctcaaa cattaaggaa 120  
 atgataactg aagcttcatt ttacctatgt aatgctacca agagaagagt atttttcaga 180  
 aatataaaga ttttaatacc tgccacatgg aaagctaata ataacagcaa aataaaacaa 240  
 gaatcatatg aaaaggcaaa tgtcatagtg actgactggg atggggcaca tggagatgat 300  
 ccatacaccc tacaatacag aggggtgtgga aaagagggaa aatacattca tttcacacct 360  
 aatttcctac tgaatgataa cttaacagct ggctacggat cagcaggccg agtgtttgtc 420  
 catgaatggg cccacctcgg ttgggggtgtg ttcgatgagt ataacaatga caaacctttc 480  
 tacataaatg ggcaaaatca aattaaagtg acaagggtgt catctgacat cacaggcatt 540  
 tttgtgtgtg aaaaagggtc ttgcccccaa gaaaactgta ttattagtaa gcttttttaa 600  
 gaaggatgca cctttatcta caatagcacc caaaatgcaa ctgcatcaat aatgttcattg 660  
 caaagtttat cttctgtggt tgaattttgt aatgcaagta cccacaacca agaagcacca 720  
 aacctacaga accagatgtg cagcctcaga agtgcatggg atgtaatcac agactctgct 780  
 gactttcacc acagctttcc catgaacggg actgagcttc cacctcctcc cacattctcg 840  
 cttgtagagg ctgggtgaaa agtgggtctgt ttagtgctgg atgtgtccag caagatggca 900  
 gaggctgaca gactccttca actacaacaa gccgcagaat tttatttgat gcagattgtt 960  
 gaaattcata ccttcgtggg cattgccagt ttcgacagca aaggagagat cagagcccag 1020  
 ctacaccaa ttaacagcaa tgatgatcga aagttgctgg tttcatatct gccaccact 1080  
 gtatcagcta aaacagacat cagcatttgt tcagggtcta agaaaggatt tgaggtggtt 1140  
 gaaaaactga atggaaaagc ttatggctct gtgatgatat tagtgaccag cggagatgat 1200  
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 gccctgggtt catctgcagc cccaaatctg gaggaattat cactgtctac aggaggttta 1320  
 aagttctttg ttccagatat atcaaaactcc aatagcatga ttgatgcttt cagtagaatt 1380  
 tcctctggaa ctggagacat tttccagcaa catattcagc ttgaaagtac aggtgaaaat 1440  
 gtcaaacctc accatcaatt gaaaaacaca gtgactgtgg ataatactgt gggcaacgac 1500  
 actatgtttc tagttacgtg gcaggccagt ggtcctcctg agattatatt atttgatcct 1560  
 gatggacgaa aatactacac aaataatttt atcaccaatc taacttttctg gacagctagt 1620  
 ctttgatttc caggaacagc taagcctggg cactggactt acaccctgaa caatacccat 1680  
 cattctctgc aagccctgaa agtgacagtg acctctcgcg cctccaactc agctgtgccc 1740  
 ccagccactg tggaaacctt tgtggaaaga gacagcctcc attttcctca tcctgtgatg 1800  
 atttatgcca atgtgaaaca gggattttat cccattctta atgccactgt cactgccaca 1860  
 gttgagccag agactggaga tcctgtttac ctgagactcc ttgatgatgg agcaggtgct 1920  
 gatgttataa aaaatgatgg aatttactcg aggtattttt tctcctttgc tgcaaatggg 1980  
 agatatagct tgaaagtgca tgtcaatcac tctcccagca taagcacccc agcccactct 2040  
 attccaggga gtcatgctat gtatgtacca ggttacacag caaacggtaa tattcagatg 2100  
 aatgctccaa ggaaatcagt aggcagaaat gaggaggagc gaaagtgggg ctttagccga 2160



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gtcagctcag gaggtcctt ttcagtgtg ggagttccag ctggccccc cctgatgtg 2220
tttccaccat gcaaaattat tgacctggaa gctgtaaaag tagaagagga attgacccta 2280
tcttgacag cacctggaga agactttgat cagggccagg ctacaagcta tgaaataaga 2340
atgagtaaaa gtctacagaa tatccaagat gactttaaca atgctatatt agtaaataca 2400
tcaaagcgaa atcctcagca agctggcatc agggagatat ttacgttctc accccaaatt 2460
tccacgaatg gacctgaaca tcagccaaat ggagaaacac atgaaagcca cagaatttat 2520
gttgcaatac gagcaatgga taggaactcc ttacagtctg ctgtatctaa cattgcccag 2580
gcgcctctgt ttattcccc caattctgat cctgtacctg ccagagatta ttttatattg 2640
aaataa                                         2646

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<210> 432

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 432

cgctgtctcg agtcattaat attcatcaga aaatgg

36

<210> 433

<211> 371

<212> PRT

<213> Homo sapiens

<400> 433

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Met Gln His His His His His Trp Gln Pro Leu Phe Phe Lys Trp
 1             5             10             15
Leu Leu Ser Cys Cys Pro Gly Ser Ser Gln Ile Ala Ala Ala Ala Ser
          20             25             30
Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu
          35             40             45
Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr
          50             55             60
Ile Pro Gln Thr Ser Ser His Gly Ala Asn Arg Phe Val Pro Lys Ser
          65             70             75             80
Lys Ala Leu Glu Ala Val Lys Leu Ala Ile Glu Ala Gly Phe His His
          85             90             95
Ile Asp Ser Ala His Val Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
          100            105            110
Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
          115            120            125
Tyr Thr Ser Lys Leu Trp Ser Asn Ser His Arg Pro Glu Leu Val Arg
          130            135            140
Pro Ala Leu Glu Arg Ser Leu Lys Asn Leu Gln Leu Asp Tyr Val Asp
          145            150            155            160
Leu Tyr Leu Ile His Phe Pro Val Ser Val Lys Pro Gly Glu Glu Val
          165            170            175
Ile Pro Lys Asp Glu Asn Gly Lys Ile Leu Phe Asp Thr Val Asp Leu
          180            185            190
Cys Ala Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala
          195            200            205
Lys Ser Ile Gly Val Ser Asn Phe Asn His Arg Leu Leu Glu Met Ile

```

210	215	220
Leu Asn Lys Pro Gly	Leu Lys Tyr Lys Pro Val	Cys Asn Gln Val Glu
225	230	235
Cys His Pro Tyr Phe	Asn Gln Arg Lys Leu Leu	Asp Phe Cys Lys Ser
245	250	255
Lys Asp Ile Val Leu	Val Ala Tyr Ser Ala Leu	Gly Ser His Arg Glu
260	265	270
Glu Pro Trp Val Asp	Pro Asn Ser Pro Val Leu	Leu Glu Asp Pro Val
275	280	285
Leu Cys Ala Leu Ala	Lys Lys His Lys Arg Thr	Pro Ala Leu Ile Ala
290	295	300
Leu Arg Tyr Gln Leu	Gln Arg Gly Val Val Val	Leu Ala Lys Ser Tyr
305	310	315
Asn Glu Gln Arg Ile	Arg Gln Asn Val Gln Val	Phe Glu Phe Gln Leu
325	330	335
Thr Ser Glu Glu Met	Lys Ala Ile Asp Gly Leu	Asn Arg Asn Val Arg
340	345	350
Tyr Leu Thr Leu Asp	Ile Phe Ala Gly Pro Pro	Asn Tyr Pro Phe Ser
355	360	365
Asp Glu Tyr		
370		

&lt;210&gt; 434

&lt;211&gt; 1119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 434

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tgccctggga	gttctcaaat	tgctgcagca	gcctccaccc	agcctgagga	tgacatcaat	120
acacagagga	agaagagtca	ggaaaagatg	agagaagtta	cagactctcc	tgggcgaccc	180
cgagagctta	ccattcctca	gacttcttca	catggtgcta	acagatttgt	tcctaaaagt	240
aaagctctag	aggccgtcaa	attggcaata	gaagccgggt	tccaccatat	tgattctgca	300
catgtttaca	ataatgagga	gcaggttgga	ctggccatcc	gaagcaagat	tgcagatggc	360
agtgtgaaga	gagaagacat	attctacact	tcaaagcttt	ggagcaattc	ccatcgacca	420
gagttgggtc	gaccagcctt	ggaaagggtca	ctgaaaaatc	ttcaattgga	ctatgttgac	480
ctctatctta	ttcattttcc	agtgtctgta	aagccagggtg	aggaagtgat	cccaaaagat	540
gaaaatggaa	aaatactatt	tgacacagtg	gatctctgtg	ccacatggga	ggccatggag	600
aagtgtaaaag	atgcaggatt	ggccaagtcc	atcgggggtgt	ccaacttcaa	ccacaggctg	660
ctggagatga	tcctcaacaa	gccagggtc	aagtacaagc	ctgtctgcaa	ccagggtggaa	720
tgtcatcctt	acttcaacca	gagaaaactg	ctggatttct	gcaagtcaaa	agacattggt	780
ctggttgctt	atagtgtctt	gggatcccat	cgagaagaac	catgggtgga	ccogaactcc	840
ccggtgctct	tgaggagccc	agtcctttgt	gccttggtgaa	aaaagcacia	gcgaacccca	900
gacctgattg	ccctgcgcta	ccagctgcag	cgtgggggtg	tggtcctggc	caagagctac	960
aatgagcagc	gcatacagaca	gaacgtgcag	gtgtttgaat	tccagttgac	ttcagaggag	1020
atgaaagcca	tagatggcct	aaacagaaat	gtgcgatatt	tgacccttga	tatttttgct	1080
ggcccccccta	attatccatt	ttctgatgaa	tattaatga			1119

&lt;210&gt; 435

&lt;211&gt; 36

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer

&lt;400&gt; 435

ggatccgccg ccaccatgac atccattcga gctgta

36

&lt;210&gt; 436

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer

&lt;400&gt; 436

gtcgactcag ctggaccaca gccgcag

27

&lt;210&gt; 437

&lt;211&gt; 37

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer

&lt;400&gt; 437

ggatccgccg ccaccatgga ctcttgacc ttctgct

37

&lt;210&gt; 438

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer

&lt;400&gt; 438

gtcgactcag aaatcctttc tcttgac

27

&lt;210&gt; 439

&lt;211&gt; 933

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 439

atggactcct	ggaccttctg	ctgtgtgtcc	ctttgcatcc	tggtagcaaa	gcacacagat	60
gctggagtta	tccagtcacc	cgggcacgag	gtgacagaga	tgggacaaga	agtgactctg	120
agatgtaaac	caatttcagg	acacgactac	cttttctggt	acagacagac	catgatgccg	180
ggactggagt	tgctcattta	ctttaacaac	aacgttccga	tagatgattc	agggatgccc	240
gaggatcgat	tctcagctaa	gatgcctaata	gcattcattct	ccactctgaa	gatccagccc	300
tcagaaccca	gggactcagc	tgtgtacttc	tgtgccagca	gttttagttgg	agcaaact	360
gaagctttct	ttggacaagg	caccagactc	acagttgtag	aggacctgaa	caaggtgttc	420
ccaccgcagg	tcgctgtgtt	tgagccatca	gaagcagaga	tctccacac	ccaaaaggcc	480
acactggtgt	gcctggccac	aggcttcttc	cctgaccacg	tggagctgag	ctggtgggtg	540

aatgggaagg	aggtgcacag	tggggtcagc	acggaccgcg	agccccctcaa	ggagcagccc	600
gccctcaatg	actccagata	ctgcctgagc	agccgcctga	gggtctcggc	caccttctgg	660
cagaaccccc	gcaaccactt	ccgctgtcaa	gtccagttct	acgggctctc	ggagaatgac	720
gagtggaccc	aggatagggc	caaacccgtc	acccagatcg	tcagcgccga	ggcctgggg	780
agagcagact	gtggctttac	ctcgggtgct	taccagcaag	gggtcctgtc	tgccaccatc	840
ctctatgaga	tcctgctagg	gaaggccacc	ctgtatgctg	tgctggtcag	cgccttctgt	900
ttgatggcca	tggtcaagag	aaaggatttc	tga			933

&lt;210&gt; 440

&lt;211&gt; 822

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 440

atgacatcca	ttcgagctgt	atttatattc	ctgtggctgc	agctggactt	ggtgaatgga	60
gagaatgtgg	agcagcatcc	ttcaaccctg	agtgtccagg	agggagacag	cgctgttatc	120
aagtgtactt	attcagacag	tgccctcaaac	tacttccctt	ggtataagca	agaacttgga	180
aaaagacctc	agcttattat	agacattcgt	tcaaattgtg	gcgaaaagaa	agaccaacga	240
attgctgtta	cattgaacaa	gacagccaaa	catttctccc	tgacatcac	agagacccaa	300
cctgaagact	cggtgtgcta	cttctgtgca	gcaagtatac	tgaacaccgg	taaccagttc	360
tattttggga	cagggacaag	tttgacggtc	attccaaata	tccagaaccc	tgaccctgcc	420
gtgtaccagc	tgagagactc	taaatccagt	gacaagtctg	tctgcctatt	caccgatttt	480
gattctcaaa	caaatgtgtc	acaaagtaag	gattctgatg	tgtatatcac	agacaaaact	540
gtgctagaca	tgaggtctat	ggacttcaag	agcaacagtg	ctgtggcctg	gagcaacaaa	600
tctgactttg	catgtgcaaa	cgccttcaac	aacagcatta	ttccagaaga	cacctttctc	660
cccagcccag	aaagttcctg	tgatgtcaag	ctggtcgaga	aaagctttga	aacagatacg	720
aacctaaact	ttcaaaacct	gtcagtgatt	gggttccgaa	tcctcctcct	gaaagtggcc	780
gggtttaate	tgctcatgac	gctgcggctg	tggtccagct	ga		822

&lt;210&gt; 441

&lt;211&gt; 2311

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 441

gatttaatcc	tatgacaaac	taagttggtt	ctgtcttcac	ctgttttggg	gaggttgtgt	60
aagagttggg	gtttgctcag	gaagagattt	aagcatgctt	gcttaccag	actcagagaa	120
gtctccctgt	tctgtcctag	ctatgttcct	gtgttgtgtg	cattcgtctt	ttccagagca	180
aaccgcccag	agtagaagat	ggattggggc	acgtgcaga	cgatcctggg	gggtgtgaac	240
aaacactcca	ccagcattgg	aaagatctgg	ctcaccgtcc	tcttcatttt	tcgcattatg	300
atcctcggtg	tggttgcaaa	ggaggtgtgg	ggagatgagc	aggccgactt	tgtctgcaac	360
accctgcagc	caggctgcaa	gaacgtgtgc	tacgatcact	acttccccat	ctccacatc	420
cggtctatgg	ccctgcagct	gatcttcgtg	tcagcccag	cgctcctagt	ggccatgcac	480
gtggcctacc	ggagacatga	gaagaagagg	aagttcatca	agggggagat	aaagagtga	540
tttaaggaca	tcgaggagat	caaaacccag	aaggtccgca	tcgaaggctc	cctgtgggtg	600
acctacacaa	gcagcatctt	cttcgggttc	atcttcgaag	ccgccttcac	gtacgtcttc	660
tatgtcatgt	acgacggctt	ctccatgcag	cggtgtgtga	agtgcacgc	ctggccttgt	720
cccaacactg	tggaactgctt	tgtgtcccgg	cccacggaga	agactgtctt	cacagtgttc	780
atgattgcag	tgtctggaat	ttgcacctct	ctgaatgtca	ctgaattgtg	ttatttgcta	840
attagatatt	gttctgggaa	gtcaaaaaag	ccagtttaac	gcattggcca	gttgtagat	900
taagaaatag	acagcatgag	agggatgagg	caaccctgtc	tcagctgtca	aggctcagtc	960
gccagcattt	cccaacacaa	agattctgac	cttaaatgca	accatttgaa	acccctgtag	1020
gcctcaggtg	aaactccaga	tgccacaatg	agctctgctc	ccctaaagcc	tcaaaacaaa	1080



Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Val Met Tyr Asp Gly  
 145 150 155 160

Phe Ser Met Gln Arg Leu Val Lys Cys Asn Ala Trp Pro Cys Pro Asn  
 165 170 175

Thr Val Asp Cys Phe Val Ser Arg Pro Thr Glu Lys Thr Val Phe Thr  
 180 185 190

Val Phe Met Ile Ala Val Ser Gly Ile Cys Ile Leu Leu Asn Val Thr  
 195 200 205

Glu Leu Cys Tyr Leu Leu Ile Arg Tyr Cys Ser Gly Lys Ser Lys Lys  
 210 215 220

Pro Val  
 225

<210> 443  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 443  
 Val Lys Leu Cys Gly Ile Asp Pro Cys Pro Asn Leu Val Asp Cys Phe  
 5 10 15

Ile Ser Arg Pro Gly Cys Gly  
 20

<210> 444  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 444  
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<210> 445  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

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<400> 445
cgtcaagatc ttcattactt ccgtcttgac
```

30

```
<210> 446
<211> 579
<212> PRT
<213> Homo sapiens
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<400>	446															
Met	Asn	Lys	Leu	Tyr	Ile	Gly	Asn	Leu	Ser	Glu	Asn	Ala	Ala	Pro	Ser	
				5					10					15		
Asp	Leu	Glu	Ser	Ile	Phe	Lys	Asp	Ala	Lys	Ile	Pro	Val	Ser	Gly	Pro	
			20					25					30			
Phe	Leu	Val	Lys	Thr	Gly	Tyr	Ala	Phe	Val	Asp	Cys	Pro	Asp	Glu	Ser	
		35					40					45				
Trp	Ala	Leu	Lys	Ala	Ile	Glu	Ala	Leu	Ser	Gly	Lys	Ile	Glu	Leu	His	
	50					55					60					
Gly	Lys	Pro	Ile	Glu	Val	Glu	His	Ser	Val	Pro	Lys	Arg	Gln	Arg	Ile	
65					70					75					80	
Arg	Lys	Leu	Gln	Ile	Arg	Asn	Ile	Pro	Pro	His	Leu	Gln	Trp	Glu	Val	
				85					90					95		
Leu	Asp	Ser	Leu	Leu	Val	Gln	Tyr	Gly	Val	Val	Glu	Ser	Cys	Glu	Gln	
			100					105					110			
Val	Asn	Thr	Asp	Ser	Glu	Thr	Ala	Val	Val	Asn	Val	Thr	Tyr	Ser	Ser	
		115					120					125				
Lys	Asp	Gln	Ala	Arg	Gln	Ala	Leu	Asp	Lys	Leu	Asn	Gly	Phe	Gln	Leu	
	130					135					140					
Glu	Asn	Phe	Thr	Leu	Lys	Val	Ala	Tyr	Ile	Pro	Asp	Glu	Thr	Ala	Ala	
145					150					155					160	
Gln	Gln	Asn	Pro	Leu	Gln	Gln	Pro	Arg	Gly	Arg	Arg	Gly	Leu	Gly	Gln	
				165					170					175		
Arg	Gly	Ser	Ser	Arg	Gln	Gly	Ser	Pro	Gly	Ser	Val	Ser	Lys	Gln	Lys	
			180					185					190			
Pro	Cys	Asp	Leu	Pro	Leu	Arg	Leu	Leu	Val	Pro	Thr	Gln	Phe	Val	Gly	
		195					200					205				
Ala	Ile	Ile	Gly	Lys	Glu	Gly	Ala	Thr	Ile	Arg	Asn	Ile	Thr	Lys	Gln	
	210					215					220					
Thr	Gln	Ser	Lys	Ile	Asp	Val	His	Arg	Lys	Glu	Asn	Ala	Gly	Ala	Ala	
225					230					235					240	
Glu	Lys	Ser	Ile	Thr	Ile	Leu	Ser	Thr	Pro	Glu	Gly	Thr	Ser	Ala	Ala	

				245						250					255
Cys	Lys	Ser	Ile	Leu	Glu	Ile	Met	His	Lys	Glu	Ala	Gln	Asp	Ile	Lys
			260					265					270		
Phe	Thr	Glu	Glu	Ile	Pro	Leu	Lys	Ile	Leu	Ala	His	Asn	Asn	Phe	Val
		275					280					285			
Gly	Arg	Leu	Ile	Gly	Lys	Glu	Gly	Arg	Asn	Leu	Lys	Lys	Ile	Glu	Gln
	290					295					300				
Asp	Thr	Asp	Thr	Lys	Ile	Thr	Ile	Ser	Pro	Leu	Gln	Glu	Leu	Thr	Leu
305					310					315					320
Tyr	Asn	Pro	Glu	Arg	Thr	Ile	Thr	Val	Lys	Gly	Asn	Val	Glu	Thr	Cys
				325					330					335	
Ala	Lys	Ala	Glu	Glu	Glu	Ile	Met	Lys	Lys	Ile	Arg	Glu	Ser	Tyr	Glu
			340					345					350		
Asn	Asp	Ile	Ala	Ser	Met	Asn	Leu	Gln	Ala	His	Leu	Ile	Pro	Gly	Leu
		355					360					365			
Asn	Leu	Asn	Ala	Leu	Gly	Leu	Phe	Pro	Pro	Thr	Ser	Gly	Met	Pro	Pro
	370					375					380				
Pro	Thr	Ser	Gly	Pro	Pro	Ser	Ala	Met	Thr	Pro	Pro	Tyr	Pro	Gln	Phe
385				390						395					400
Glu	Gln	Ser	Glu	Thr	Glu	Thr	Val	His	Leu	Phe	Ile	Pro	Ala	Leu	Ser
				405					410					415	
Val	Gly	Ala	Ile	Ile	Gly	Lys	Gln	Gly	Gln	His	Ile	Lys	Gln	Leu	Ser
		420					425						430		
Arg	Phe	Ala	Gly	Ala	Ser	Ile	Lys	Ile	Ala	Pro	Ala	Glu	Ala	Pro	Asp
	435						440					445			
Ala	Lys	Val	Arg	Met	Val	Ile	Ile	Thr	Gly	Pro	Pro	Glu	Ala	Gln	Phe
	450					455				460					
Lys	Ala	Gln	Gly	Arg	Ile	Tyr	Gly	Lys	Ile	Lys	Glu	Glu	Asn	Phe	Val
465					470					475				480	
Ser	Pro	Lys	Glu	Glu	Val	Lys	Leu	Glu	Ala	His	Ile	Arg	Val	Pro	Ser
			485					490						495	
Phe	Ala	Ala	Gly	Arg	Val	Ile	Gly	Lys	Gly	Gly	Lys	Thr	Val	Asn	Glu
		500					505					510			
Leu	Gln	Asn	Leu	Ser	Ser	Ala	Glu	Val	Val	Val	Pro	Arg	Asp	Gln	Thr
	515						520					525			
Pro	Asp	Glu	Asn	Asp	Gln	Val	Val	Val	Lys	Ile	Thr	Gly	His	Phe	Tyr



530

535

540

Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val  
 545 550 555 560

Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser  
 565 570 575

Arg Arg Lys

<210> 447

<211> 1743

<212> DNA

<213> Homo sapiens

<400> 447

atgaacaaac tgtatatcgg aaacctcagc gagaacgccg cccctcgga cctagaaagt 60  
 atcttcaagg acgccaagat cccggtgtcg ggacccttcc tgggtgaagac tggctacgcg 120  
 ttcgtggact gcccgagca gagctgggcc ctcaaggcca tcgaggcgct ttcaggtaaa 180  
 atagaactgc acgggaaacc catagaagtt gagcactcgg tcccaaaaag gcaaaggatt 240  
 cggaaacttc agatacgaat tatccgcct ctttacagt gggaggtgct ggatagttta 300  
 ctagtccagt atggagtggg ggagagctgt gagcaagtga acactgactc ggaaactgca 360  
 gttgtaaatg taacctattc cagtaaggac caagctagac aagcactaga caaactgaat 420  
 ggatttcagt tagagaatct caccttgaaa gtacgtata tccctgatga aacggccgcc 480  
 cagcaaaacc ccttgcagca gccccgaggt cgccgggggc ttgggcagag gggctcctca 540  
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 gagaagtgcg ttactatcct ctctactcct gaaggcacct ctgcgccttg taagtctatt 780  
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 atttttagctc ataataactt tgttggacgt cttattggta aagaaggaag aaatcttaaa 900  
 aaaattgagc aagacacaga cactaaaatc acgatatctc cattgcagga attgacgctg 960  
 tataatccag aacgcactat tacagttaaa ggcaatgttg agacatgtgc caaagctgag 1020  
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 agtctctaaag aagaggtgaa acttgaagct catatcagag tgccatcctt tgctgctggc 1500  
 agagttattg gaaaaggagg caaacgggtg aatgaacttc agaatttgtc aagtgcagaa 1560  
 gttgttgttc ctctgagca gacacctgat gagaatgacc aagtgggtgt caaaataact 1620  
 ggtcacttct atgcttgcca ggttgcccag agaaaaattc aggaaattct gactcaggta 1680  
 aagcagcacc aacaacagaa ggctctgcaa agtggaccac ctcagtcaag acggaagtaa 1740  
 tga 1743

<210> 448

<211> 35

<212> DNA

<213> Artificial Sequence

$\langle 220 \rangle$ 

<223> PCR primer

<400> 448

cgtactagca tatgaacaaa ctgtatatcg gaaac

35

<210> 449

<211> 579

<212> PRT

<213> Homo sapiens

<400> 449

Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser  
5 10 15

Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro  
20 25 30

Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser  
35 40 45

Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His  
50 55 60

Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile  
65 70 75 80

Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val  
85 90 95

Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln  
100 105 110

Val	Asn	Thr	Asp	Ser	Glu	Thr	Ala	Val	Val	Asn	Val	Thr	Tyr	Ser	Ser
		115					120					125			

Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu  
130 135 140

Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala  
145 150 155 160

Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln  
165 170 175

Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys  
180 185 190

Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly  
195 200 205

Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln

[illegible]

Thr 225	Gln 210	Ser	Lys	Ile	Asp 230	Val 215	His	Arg	Lys	Glu 235	Asn 220	Ala	Gly	Ala	Ala 240
Glu	Lys	Ser	Ile	Thr 245	Ile	Leu	Ser	Thr	Pro 250	Glu	Gly	Thr	Ser	Ala 255	Ala
Cys	Lys	Ser	Ile 260	Leu	Glu	Ile	Met	His 265	Lys	Glu	Ala	Gln	Asp 270	Ile	Lys
Phe	Thr	Glu 275	Glu	Ile	Pro	Leu	Lys 280	Ile	Leu	Ala	His	Asn 285	Asn	Phe	Val
Gly	Arg 290	Leu	Ile	Gly	Lys	Glu 295	Gly	Arg	Asn	Leu	Lys 300	Lys	Ile	Glu	Gln
Asp 305	Thr	Asp	Thr	Lys	Ile 310	Thr	Ile	Ser	Pro	Leu 315	Gln	Glu	Leu	Thr	Leu 320
Tyr	Asn	Pro	Glu	Arg 325	Thr	Ile	Thr	Val	Lys 330	Gly	Asn	Val	Glu	Thr 335	Cys
Ala	Lys	Ala	Glu 340	Glu	Glu	Ile	Met	Lys 345	Lys	Ile	Arg	Glu	Ser 350	Tyr	Glu
Asn	Asp	Ile 355	Ala	Ser	Met	Asn	Leu 360	Gln	Ala	His	Leu	Ile 365	Pro	Gly	Leu
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Pro 385	Thr	Ser	Gly	Pro	Pro 390	Ser	Ala	Met	Thr	Pro 395	Pro	Tyr	Pro	Gln	Phe 400
Glu	Gln	Ser	Glu	Thr 405	Glu	Thr	Val	His	Leu 410	Phe	Ile	Pro	Ala	Leu 415	Ser
Val	Gly	Ala	Ile 420	Ile	Gly	Lys	Gln	Gly 425	Gln	His	Ile	Lys	Gln 430	Leu	Ser
Arg	Phe	Ala 435	Gly	Ala	Ser	Ile	Lys 440	Ile	Ala	Pro	Ala	Glu 445	Ala	Pro	Asp
Ala	Lys 450	Val	Arg	Met	Val	Ile 455	Ile	Thr	Gly	Pro	Pro 460	Glu	Ala	Gln	Phe
Lys 465	Ala	Gln	Gly	Arg	Ile 470	Tyr	Gly	Lys	Ile	Lys 475	Glu	Glu	Asn	Phe	Val 480
Ser	Pro	Lys	Glu	Glu 485	Val	Lys	Leu	Glu	Ala 490	His	Ile	Arg	Val	Pro 495	Ser
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Arg Arg Gly Leu  
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&lt;210&gt; 456

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 456

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Glu Glu Ile Met  
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&lt;210&gt; 457

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 457

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Ala Leu Ser Gly  
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&lt;210&gt; 458

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 458

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Val Leu Asp Ser  
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&lt;210&gt; 459

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 459

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33